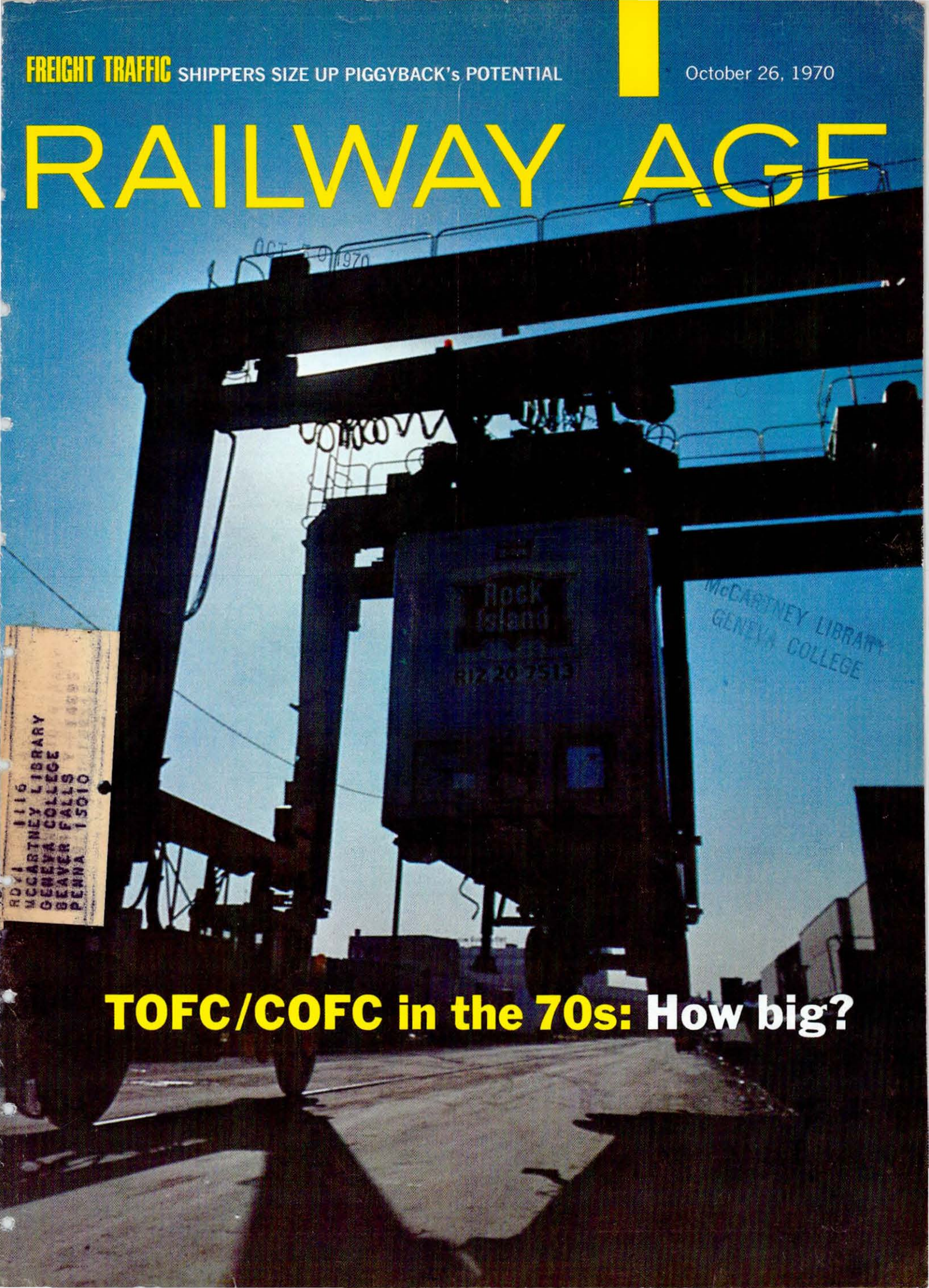
FREIGHT TRAFFIC SHIPPERS SIZE UP PIGGYBACK's POTENTIAL

October 26, 1970

RAILWAY AGE



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TOFC/COFC in the 70s: How big?

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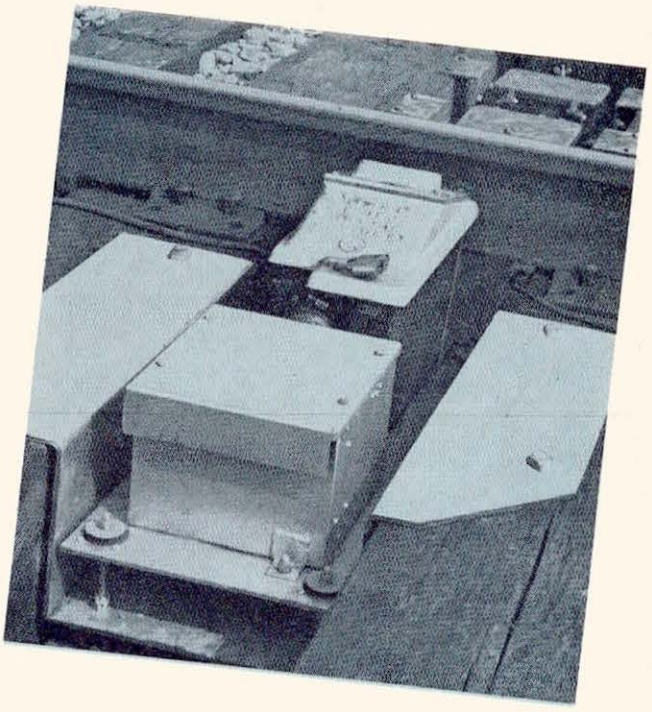

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RAILWAY AGE

October 26, 1970 • Vol. 169 No. 8

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Inside

LUTHER MILLER

100-PROOF L&D PREVENTION

A southwestern carbuilder is reported to be working on a tank car designed to move a staggering 20,000 gallons of liquor in bulk—but for the time being, most booze continues to move to market in bottles. It's a delicate operation, and one that has long commanded the attention of L&D-prevention experts. Some time ago Railway Age's Fred Houser reported on the successful efforts of the Chesapeake & Ohio to give liquor a smooth ride in cushion-underframe, moveable-bulkhead cars (RA, Nov. 28, 1966, p. 29). For the industry as a whole, however, the liquor L&D problem is still a sizeable one, adding up to more than $2 million a year in breakage and spillage. So refinements in the art are being pursued.

The latest are explored by Gus Welty in the article beginning on p. 46—another in our "Ship by Rail" series.

PRICING PIGGYBACK OUT OF THE MARKET?

For years railroad writers, looking for a bullish sign on the horizon, have been able to point to piggyback as "a bright spot in an otherwise cloudy picture." That's how the cliche goes. But it is no longer a very useful cliche. Piggyback is still a glow in the over-all picture, but the glow has dimmed.

What has arrested the growth of piggyback? For his annual piggyback roundup, Senior Editor Welty put the question to a number of railroad piggyback men (p. 34). Some talked about the economic slump; some mentioned labor unrest; others thought the answer was, at least partly, that there has been a deliberate weeding out of unprofitable traffic.

When the same question was put to the customer side, the answers were—predictably—different. A high number of shippers put the blame on rising rates. Many said flatly that railroads were pricing themselves out of the business. This could be, of course, a part of the weeding-out process mentioned by the railroad men. Make up your own mind after reading the shippers' side in the October Traffic Poll (p. 42).

BUSY DAYS ALONG THE POTOMAC

"Passage of the Railpax Act alone would have insured that the 91st Congress was the most productive writer of railroad legislation of any Congress in recent years," memos Washington Editor Reid Beddow. But it has been more than Railpax (p. 14) that has made this summer the busiest in memory for our Washington office. The Safety Bill was debated, passed and sent to the White House (p. 12). Two important freight-car bills went into the Senate hopper (p. 33). President Nixon signed into law the mass-transit bill. And there was other activity. But the most frenetic of all centered about a bill that failed. See Watching Washington (p. 48).

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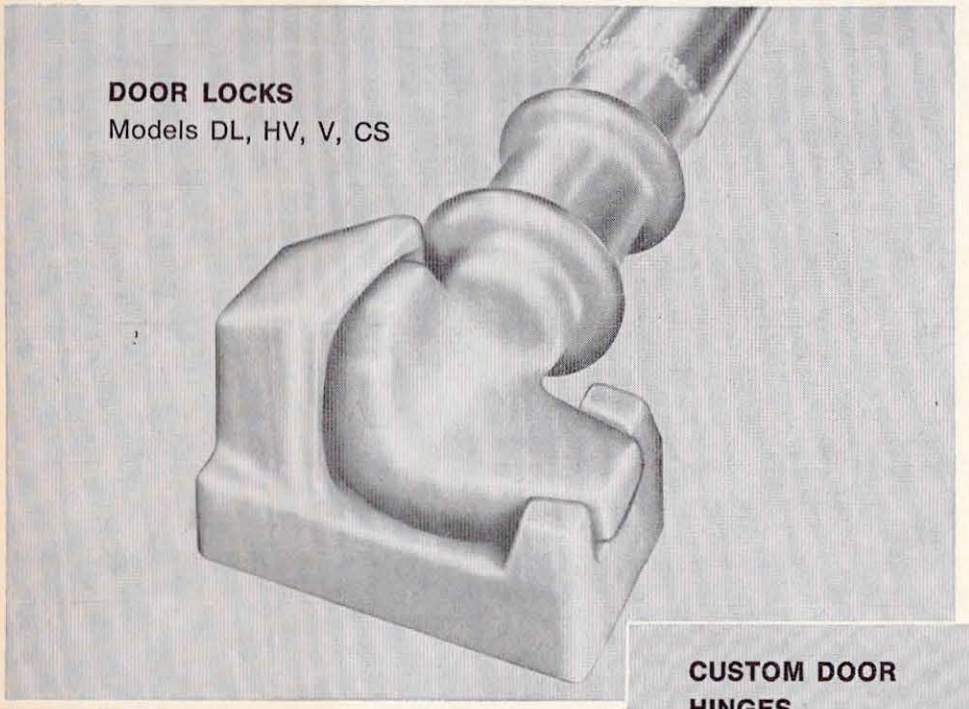

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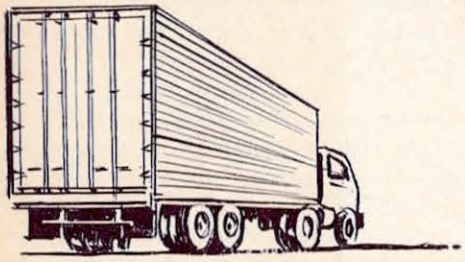

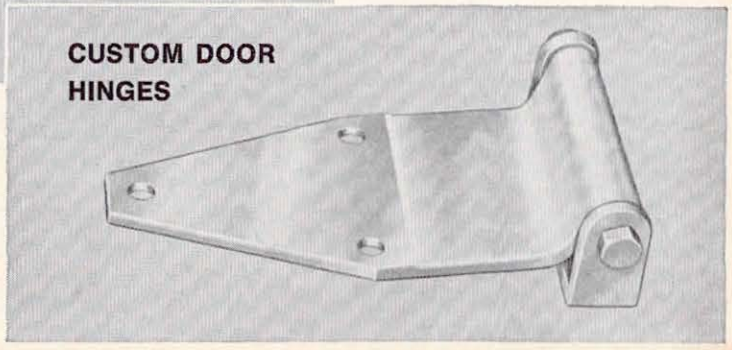

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RAILWAY AGE

OCTOBER 26, 1970

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Short and Significant

GOVERNMENT

HOUSE PANEL VOTES CROSSING AIDS

The 1970 Federal-Aid Highway Act approved by the House Public Works Committee contains a clause which provides that DOT would pay 90% of the costs in eliminating rail grade crossings across Federal highways on the high-speed New York to Washington Metroliner route, with rails paying the remaining 10%. On state and local roads DOT would pay 80%, states 10%, and rails 10%. A similar measure was contained in the 1969 Highway-Aid bill passed by the House, but was not acted upon by the Senate.

DOT STUDIES RAILROAD REVENUES

DOT's Office of Policy Development, in the words of DOT Secretary John A. Volpe, is "taking a long, hard look at the rail revenue situation." The OPD is a research-oriented think tank, and its goal apparently is the development of a new kind of revenue procedure. Findings are months away.

THE INDUSTRY

PC PONDERS DROPPING "OTHER" HOLDINGS

Penn Central Transportation Co. trustees in an Oct. 14 statement said that "disposal of Penn Central's holdings in other companies, either direct or through the Pennsylvania Co., is under close study." If such a course is adopted, the trustees said, "it is important that it be done in an orderly manner and that the top dollar be obtained." The statement came as part of a broader statement in which the trustees reiterated that "the cash position of Penn Central Transportation Co. is so critical that a wage increase, either retroactively or for the future, is unrealistic at the present time. This point has been made clear on behalf of Penn Central in the present proceedings before Presidential Emergency Board 178." (The Emergency Board, which is investigating wage disputes involving four rail unions, was originally to have submitted its report to President Nixon Oct. 18. The deadline has now been extended to Nov. 4.)

BN'S MENK WINS '70 SELEY AWARDS

The 1970 Seley Awards "for distinguished service to transportation" will go to Louis W. Menk, president of the Burlington Northern. The awards include a personalized gold medallion and $5,000 payable to the university chosen by the winner. Menk was named president of the Frisco in 1962, president of the Burlington in 1965, president of Northern Pacific in 1966, and president of the BN this year.

PERLMAN BECOMES A WESTERNER AGAIN

Alfred E. Perlman—who came East in 1954 from the Denver & Rio Grande Western to head up the New York Central—will go West again Dec. 1 to become president of the Western Pacific, succeeding Myron M. Christy, who resigned.

EIGHTH TRAILVAN TRAIN GOES IN SERVICE

Penn Central has added a new TrailVan (piggyback) train to its New York-Chicago schedule. This brings to eight the number of TrailVans plying between the two cities. The new train leaves PC's North Bergen, N. J., yard at 4 a.m. for arrival at Englewood yard, Chicago, at 7 a.m. the following morning.

EASTERN RAILROAD ASSOCIATION FORMED

A new organization—the Eastern Railroad Association—will hang out its shingle Nov. 1, at 2 Penn Plaza, New York. It will combine the Eastern Railroad Presidents Conference, the Traffic Executive Association-Eastern Railroads and associated organizations, the Eastern Demurrage and Storage Bureau, and the Railroad Perishable Inspection Agency. E. Spencer Miller, president of Maine Central, will be chairman and chief executive officer of the new ERA. Charles E. Baxter, chairman of the Traffic Executive Association, will continue to head that group.

EXTRA-INCOME NEEDS PUT AT $2 BILLION

Rails need an additional $2 billion annually in pretax income to become fully solvent and meet freight needs, says Dr. Paul W. Cherington, Hill Professor of Transportation at Harvard. He will unveil his study of rail finances over the last 20 years at a research consultants' seminar in New York. Cherington, a former DOT assistant secretary and still a consultant to the Department, also found that as much as ⅓ of rail tonnage moves at rates below the cost of movement. To provide the additional income, Cherington urges a drastic rail-ICC restructuring of rates in addition or parallel to the 15% general rate increase now under ICC investigation.

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RAILWAY AGE NEWS

Employee-purchase plan now under way for C&NW

It's simple, it's complex. It's the plan by which Chicago & North Western employees—as North Western Employees Transportation Corp.—may become the owners of their enterprise.

The employee company, NETCO, has reached an agreement with C&NW Railway Co., subsidiary of Northwest Industries. The required application has been filed with the ICC. Larry S. Provo, president of C&NW and president of NETCO, cites support for employee-ownership from within the company, from certain of the rail labor organizations and from public officials in C&NW territory. He's hopeful that the sale "can be completed at an early date."

Under the sale plan, NETCO would acquire C&NW's transportation assets for approximately $420 million—by assuming $401 million of publicly-held debt and by paying $19 million to the railway company over a 20-year period. Included in the debt is about $210 million in equipment obligations and about $85 million in mortgage debt which is not due until the late 1980s. Much of the debt, Provo notes, is at interest rates "substantially lower" than could be obtained today.

Certain restrictions are attached to the sale agreement, "since the North Western Railway will remain liable on a substantial portion of the railroad debt to be assumed." There are, for example, restrictions on dividends: No dividends other than stock dividends may be paid for a five-year period, and there would be a dividend limit for an additional five years. The employee company has also agreed to limit its power "to make non-transportation acquisitions for at least 10 years." It has agreed to limits for a like period on the incurring of new debt, other than for equipment.

As security for performance of its obligations, "the employee company will grant North Western Railway a lien on the employee company's property, subject to the lien of other obligations assumed by the employee company and certain other liens."

Shares of stock in the new company are to be offered to employees "following the required approvals of the ICC and satisfaction of other conditions." After consummation of the sale "and in order to insure the employee company's stability and continuity of management during its early years, substantially all of the voting power—with certain exceptions involving such matters as mergers, consolidations, sale, lease or exchange of all or substantially all of its assets, and charter amendments—will reside in three trustees," at least one of whom must not be an officer or employee of NETCO. This trust arrangement is to remain in force for no longer than 10 years.

Larry Provo puts it this way: "Every effort has been made to make certain that the employee company will be a viable, self-sufficient and soundly-financed enterprise. . . . We are convinced that employee ownership and management may well be a major factor bolstering the road's fortunes."

Test center's track under construction

A $872,630 contract for construction of an initial 9.8 miles of track at the Department of Transportation's High Speed Ground Transportation Test Center near Pueblo, Colo., has been awarded to a Boise, Idaho, firm. Morrison-Knudsen Co. is to begin work immediately on the project, which calls for construction of 3.6 miles of access track to connect the Center with the Pueblo Army Depot and 6.2 miles of track for testing of the Linear Induction Motor (LIM).

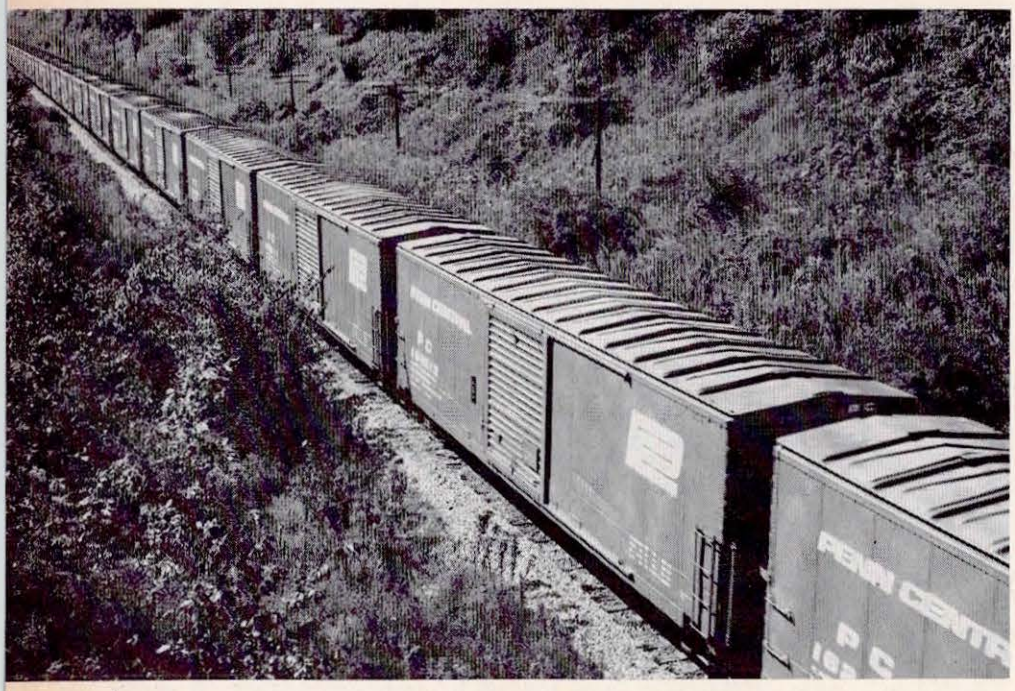
The Federal Railroad Administration says the 6.2 miles of LIM track will be "constructed of high quality all-welded rail and will be laid to an accuracy that has never before been accomplished." Work is expected to be completed by mid-January 1971, at which time the LIM, currently undergoing testing in Torrance, Calif., will be transferred to the Center. The LIM is expected to be an important power source for future transportation systems such as the Tracked Air Cushion Vehicle (TACV). TACV is proposed for high-speed airport access services.

Trainees graduate from SP simulator

Southern Pacific's $1-million locomotive and train operations simulator, sometimes called "the locomotive that goes nowhere," has graduated its first classes of enginemen trainees. From the road's new Engine Service Training Center at Downey, Calif., home of the simulator, the trainees have moved on to the cabs of real locomotives for additional training. Progress reports from the field, say SP personnel officers, indicate that the simulator graduates are performing at a more advanced level than trainees who did not have the benefit of simulator training.

The SP simulator was designed and built by Conductron Corp., a subsidiary of McDonnell Douglas. Its cab is modeled after the SD-45, a 3,600 hp unit.

NEWS



PC equipment: The road back

A $9.4-million Penn Central equipment program for rebuilding box cars has started at PC's Beech Grove, Ind., and Hollidaysburg, Pa., shops. At the same time many of the commitments for cars and locomotives placed with commercial builders have been reaffirmed by the road's trustees.

The car rebuilding fulfills a freight service improvement pledge made by William H. Moore, president and chief executive officer. Beech Grove is stretching 40-foot cars to a 50-foot length, as well as completely rehabilitating them. These, along with cars being processed at the Samuel Rea shop, are adding 1,158 units to PC's fleet.

Safety Act involves states

The 1970 Railroad Safety Act has been enacted by Congress, somewhat to its own surprise, after a year-long bicker between state and Federal safety regulators.

Final version of the Act, not surprisingly, is a compromise of the claims of the two. Here is what the Act, the first comprehensive rail safety law this century, accomplishes:

—FRA will issue minimum safety rules and regulations covering all aspects of rail operations.

—Inspection and enforcement will be handled by FRA and those states certified by FRA as having the necessary resources for inspection and surveillance. If thus certified, the states may receive up to 50% of their inspection costs from FRA. On the other hand, FRA may withdraw certification if it feels states are not doing their job.

—$21 million was appropriated to run the program this fiscal year.

—All states are required first to report any violations to FRA.

—Certified states may go into Federal court to obtain compliance with the Act if FRA has failed to do so in 90 days.

—Safety infractions could result in penalties between $250 and $2500 for each violation.

—DOT will prepare within one year a comprehensive study of the problems and costs involved in eliminating and protecting rail grade crossings.

AAR's track standards:

Since shortly after October 1 track engineers of AAR member roads have been poring over a 42-page typewritten document that could have a profound effect on track-maintenance activities in the United States. Chief operating and executive officers of these roads are equally interested in the document and possibly even concerned by its implications.

The title of the document—Recommended Standards for Track Maintenance—is innocent enough. But its adoption by the AAR board of directors on September 25 was an act that has no precedence in the history of track maintenance in this country. For the first time the association's member roads have been handed a set of standards that spell out, in detailed and specific terms, allowable tolerances for virtually every aspect of track maintenance.

The standards, to be sure, are only recommended; their application is not mandatory on the part of AAR roads. The significance of their adoption only comes into focus when it is considered in the light of another development—passage by Congress of an act providing for Federal control over railroad safety.

The legislation, entitled the Federal

Hefty transit funds tabbed for Chicago

More than $400 million in Federal grants for the Chicago metropolitan area's urban and suburban rail transportation systems will probably be approved before June 30, 1971, according to Carlos C. Villarreal, administrator of Department of Transportation's Urban Mass Transportation Administration.

In Chicago to address a luncheon meeting of the Joint Transportation Engineering Conference, he added that the grants would come from the new $3.1 billion transit aid program enacted by Congress.

The bulk of the grant money will go

Pattern for Federal regulation?

Railroad Safety Act of 1970, authorizes the Secretary of Transportation to prescribe regulations and standards covering all areas of railroad safety, track standards included. A significant provision in the act directs the secretary, in prescribing regulations and standards, to consider "relevant existing safety data and standards." Since the new AAR track standards came into being in time to fit this definition, DOT is being urged by the AAR to adopt the standards as its own.

Development of the AAR track standards had its origin with the General Committee of the AAR's Engineering Division. Months ago this committee recognized that there was an urgent need for the railroads to develop industrywide standards for track maintenance and inspection. With the full approval of the AAR the work of preparing the standards was undertaken.

Recommended minimum track inspection standards were the first to be completed. Late last year these were submitted by letter ballot to the member roads of the AAR and were adopted.

Preparation of track standards was started in the spring of this year with the appointment of a task force of the Engineering Division. The work of the task force was carried out under the direction of E. Q. Johnson, chairman of the Engineering Division and chief engineer of the Norfolk & Western, and E. W. Hodgkins, executive vice-chairman of the Engineering Division.

The task force was given three months to complete its assignment. At an organizational meeting held on May 20, 1970, the task force was divided into three teams. To Team No. 1 was assigned the task of preparing standards on roadbed and right of way and track geometry. Team No. 2 went to work on standards for ballast, ties, rail and fastenings. Team No. 3 drew turnouts and railroad and highway crossings.

Some of the task-force members devoted the working days of the week to their assignments and then spent the weekends trying to catch up with their regular work. Their task-force assignment was completed in time for the standards to be considered at a meeting of the Engineering Division's General Committee on August 14. They were approved at that meeting. The standards surmounted another hurdle when they were approved by the General Committee of the AAR's Operating-Transportation Division on September 10. Final approval came at the regular meeting of the AAR's board of directors on September 25.

Letters attaching copies of the standards went out on October 1 to chief executive officers of AAR roads from Thomas M. Goodfellow, AAR president. On the same day, R. R. Manion, vice president of the AAR's Operations and Maintenance Department, was sending out copies of the standards to chief operating officers. Along with a covering letter dated October 6 copies of the standards went out from Hodgkins' office to chief engineering and maintenance officers.

Adoption of the recommended track standards raises some questions. Will the railroads put them into effect voluntarily? Does the trackage on individual railroads in general conform to the standards or will maintenance activities need to be stepped up? And finally, will they be used as the basis for regulations to be issued by DOT? According to the railway safety act the Transportation Secretary has up to a year in which to issue the safety regulations and standards called for by the act.

toward construction of downtown subway systems. However, Illinois Central and Chicago, South Shore and South Bend commuters will also benefit from any favorable federal action on commuter equipment fund requests. Transit authorities for the two commuter groups have requests in for federal aid—the IC group, for additional funds to cover costs of 130 new double-deck, electric suburban cars, and CSS&SB's group for 30 to 34 new single level, electric suburban cars. Lake Porter County (Ind.) Regional Transportation and Planning Commission is seeking $6 million to cover two-thirds of the costs of the cars, which would then be leased to CSS&SB.

Other pending requests are expected to receive approval, including $3.6 million as a final contribution to the Dan Ryan median strip rapid transit line. Villarreal also disclosed that a new rapid transit test car may be assigned to the Chicago Transit Authority.

TurboTrain wins reprieve from DOT

DOT has somewhat reluctantly agreed to a "temporary" extension of the New York-Boston TurboTrain service.

The contract between DOT, Penn Central, and United Aircraft, designer of the high-speed trains, had expired Oct. 22.

The TurboTrains were part of an official demonstration project, funds for which ran out on the contract expiration date.

Temporary extension of the demonstration agreement would carry it to sometime after Jan. 1.

Feeling that purposes of the demonstration were already accomplished, DOT had wanted to pull out of the demonstration, letting Penn Central and United Aircraft negotiate a new agreement.

By offering the possibility of a renewed three-party agreement, DOT hopes to force improvement in equipment reliability, the addition of more cars to the trains, and eventual operation of more trains.

New England Congressmen, notably Sen. Claiborne Pell (D-R.I.), had objected to DOT abandonment of the project.

NEWS

Railpax passenger trains will be in service in six months

From Washington this month came the word: After 140 years in the passenger business, U.S. railroads next May can turn over some of that service to a semipublic corporation and abandon the rest.

It was not really the end of an era, a page-turning in history. The page had been turned long ago. In 1929 there were 20,000 passenger trains. Last year there were 421. Before the ICC early this month were applications to drop a further 59, and in U.S. courts 14 train-offs awaited final judicial disposition.

The word came on Oct. 14, when Congress gave final approval to creation of the new corporation, which practically universally was dubbed Railpax. Hours later, House and Senate recessed to begin election stumping. Approval came by voice votes in both houses, and the measure swiftly was sent to President Nixon for signature.

The new law authorized $340 million in Federal grants and loan guarantees for Railpax startup costs—$40 million in direct aid to the Railpax Corporation, $100 million in loan guarantees to same, and $200 million in loans or loan guarantees to individual railroads to enable them to join the Corporation.

Railpax itself would be run by 15 directors—eight appointed by President Nixon; three selected by common (rail) stockholders, and four by preferred (non-rail) stockholders. This board would be advised by a 15-man financial advisory panel with this makeup: Six from rails and banks, two from DOT, and seven representing the public from the various regions of the nation. In short, if Railpax, a for-profit corporation, loses money on passenger service, it will do so with the best advice ever tendered in a rail passenger situation.

May 1, 1971 is the target date for Railpax to begin operations.

In chronological order, here is what will happen between now and then:

—DOT will shortly announce its recommendation for a "basic national rail passenger system." This network was planned months ago by FRA officials. The word "national" is accurate. The system will have some long-distance trains as well as service in the high density corridors between Washington, New York, and Boston; Chicago and Cleveland; Chicago and St. Louis; the West Coast population corridor, and possibly a route through the South. It is likely that some cities now with intercity service will lose it.

—Within 30 days of DOT's announcement of a basic system, the ICC, state regulatory commissions, railroads, and labor unions must comment on the proposed basic system.

—Within a further 30 days, DOT will submit its final recommendation on the basic national rail passenger system to Congress. The final report would not be reviewable in any court.

—The governmental directors would then be appointed. They would immediately issue common stock to railroads wishing to join the corporation and preferred stock for sale in the private market. Common stock will have a par value of $10 a share, preferred a par value of $100. Both are eligible for dividends, but no common dividends will be paid while those on preferred are in arrears. The preferred will have fixed dividends of 6% a year which are cumulative. No railroad could own more than a third of the common, and no individual more than 10% of the preferred.

—Railpax then would offer contracts to any railroad operating intercity passenger trains over the basic system to relieve the railroad after May 1, 1971 of its entire responsibility for the provision of intercity rail passenger service. The contracts first would be offered rails on May 1, 1971, again on or after May 1, 1973. No contract can be offered after Jan. 1, 1975. When a contract is signed, Railpax would operate through a service contract with the railroad the actual trains between basic system points. The railroad could discontinue its other passenger trains, simply by giving the ICC 30 days notice. From now until May 1, there is a moratorium on all train-offs regardless of their status.

—In consideration for being relieved of responsibility for any rail passenger service, a railroad is required to pay Railpax in return for common stock an amount computed in accordance with one of the three following formulas, whichever is most favorable to the railroad: 50% of the fully distributed passenger deficit of the railroad for 1969; 100% of the avoidable loss of all intercity rail sevice operated by the railroad in 1969; 200% of the avoidable loss of the rail passenger service operated by the road over routes between points within the basic system during 1969.

The amounts so computed can be paid by the railroad at Railpax's option in either cash, rail passenger equipment, or by providing future service. The railroad can deduct the payment for tax purposes in the year it is made. However, this deduction is available only if it elects not to receive stock in the corporation.

Other provisions:

—Allow Railpax to extend the basic system service. Once inaugurated, however, such service automatically becomes part of the basic system after two years;

—Any state, regional, or local agency may request Railpax service if it agrees to pay 66⅔% of the losses caused by the new service;

—Railpax must provide basic system service until July 1, 1973. After that, it may discontinue trains under Section 13a of the Interstate State Commerce Act, the train-off procedure now in effect. Any state, local, or regional agency can require continued service if it pays two thirds of the loss;

—Any railroad with passenger service that does not join the corporation must continue such service until Jan. 1, 1975, at which time it must conform to a Section 13a train-off procedure.

AAR President Thomas M. Goodfellow saluted the Act's passage: It "is a further significant step towards applying a policy of fairness and realism," he noted. "The legislation recognizes that government must help in financing what is essentially a public service and that railroads alone can't continue to bear the cost of providing it."

RPI panelists will "meet the press"

NBC quizmaster Lawrence E. Spivak will be in charge, as usual—and, again as usual, the Railway Progress Institute has picked four top railroad executives for its own version of "Meet the Press" during RPI's 62nd annual meeting in New York Nov. 5.

This year's railroad panelists will be Frank E. Barnett, chairman and chief executive officer of the Union Pacific; John M. Budd, chairman and chief executive officer of the Burlington Northern; Richard C. Grayson, president of the Frisco; and W. Thomas Rice, chairman and chief executive officer of the Seaboard Coast Line.

They will be quizzed by Robert E. Bedingfield, of the New York Times; Alan Goldsand of the Journal of Commerce; Brenton Welling, Jr., of Business Week; and James Michaels, editor of Forbes.

Among other activities scheduled for a busy day leading up to RPI's annual dinner will be a financial analysts panel; the annual luncheon; and business meetings at which officers will be elected. Nils A. Lennartson is president of RPI, a full-time executive position. RPI's current chairman is Frank L. Bredimus, president of Dresser Transportation Equipment Division, Dresser Industries, Inc. Vice chairman is Henry A. Correa, president of ACF.

Pullman bids low on SEPTA CARS

Pullman Standard has been announced as the "tentative" low bidder on the supply of up to 144 commuter cars for the Southeastern Pennsylvania Transportation Authority (SEPTA).

Pullman submitted base bids of $408,440 per car for 130 to 144 cars; and $410,758 for 115 to 129 cars. The only other bidder was General Electric. GE's base bid was $444,727 for 130 to 144 cars, and $458,157 for 115 to 129.

A period of 109 days is required from the date of the bid opening, Oct. 16, for evaluation by the respective staffs of SEPTA, the City of Philadelphia, and the Penn Central and Reading Railroads.

Bids were opened simultaneously on the supply of 36 to 60 similar cars for the New Jersey State Department of Transportation. The N. J. DOT participated with SEPTA designers in developing specifications.

Purchase of the SEPTA cars became possible when the U. S. Department of Transportation, last March 6, agreed to grant $21 million to cover half of the $42-million project.

The first SEPTA car is to be delivered within 609 days of the formal awarding of the contract, with delivery of the entire fleet requiring approximately 1,004 days.

IC plans to drop "Panama Limited"

Claiming a "crushing financial burden," Illinois Central has decided it must discontinue the Chicago-New Orleans "Panama Limited." Operating costs last year exceeded revenues by more than $1 million, making the "Panama" IC's largest deficit operation. Another factor in IC's decision is equipment obsolescence. Despite good maintenance, says Vice President-Passenger Services Henry F. Davenport, the 25-year-old "Panama" is wearing out. Replacement cost, for two sets of equipment including new motive power, would be about $7 million—and capital funds just aren't available for investment in such a losing operation.

JOBS Commission: A progress report

In terms of actual, real, tangible accomplishments, the Illinois Central United Transportation Union JOBS Commission has yet to show a winner. But nobody's discouraged—least of all, IC Chairman William B. Johnson.

Thus far, he told a recent meeting of the directors of the Transportation Association of America, the Commission—which requires either a unanimous vote or an overruling of minority votes by the presidents of IC and UTU—has been able to come up only with split ballots. It was 4-2 in favor on a grain minitrain proposal, 4-2 on a mini-piggyback proposal and 5-1 on a train designed "to respond to a special situation."

Three members are IC officers and three UTU general chairmen.

Says Johnson: "Cynics, even within our own ranks at IC, say [this] proves that the unions will never unanimously agree to any change whatever. . . . I don't believe the cynics. The fact that the union votes were split is encouraging. There was a management vote against one of the projects, in addition to a union vote against. . . . I think it is promising. A straight party-line JOBS Commission might prove useless. But these men sound as though they may be groping for real answers to the industry's very real problems in these difficult times."

Railroads, Johnson points out, "have an 'efficient' technology—a transport technology that uses less energy and other resources to do its work. But this particular technology will not serve all purposes, and the 'efficiency' apostles are baffled by the apparent desire shippers have to patronize the clearly 'inefficient' carriers, such as trucks, airplanes and barges.

"What the JOBS Commission could be doing, in its groping for new answers to our old questions, is defining anew a railroad/union answer to this question: Do railroads and railroad men want to be 'efficient,' with all that implies in terms of big cars, powerful engines, long trains, giant yards and so forth? Or do they want to be effective, with services that shippers want to buy?"

NEWS

Lines on Labor

GUS WELTY

THREE PLANS FOR TOMORROW . . .

The problems in rail management/labor relations aren't so hard to spot—but the solutions surely are. Consider, for instance, the positions recently made clear by three key men—J. P. Hiltz, Jr., chairman of the National Railway Labor Conference; Charles Luna, president of the United Transportation Union; and Richard M. Nixon. Management's position will be attacked by labor, and labor's by management. And President Nixon's may be ignored by people who should pay attention to it, namely the Congress.

HILTZ, LUNA AND THE WORK-RULES PROBLEM—REVISITED

NRLC Chairman Hiltz is proposing that Congress create a special commission—with power to make binding decisions—to look into and settle longstanding work-rules disputes. The cost of outmoded work rules, he declares, runs into the hundreds of millions of dollars annually—and these "long-standing and enormously costly 'featherbedding' practices . . . must be rooted out if this industry is not to stagger on from one financial crisis to another." Among the questions which the commission might consider would be railroad proposals to end the dual basis of pay, to eliminate arbitraries and to wipe out separate road and yard rules. While Hiltz was presenting his plan to an emergency board, however, UTU President Luna was making his case in a different forum, at the Railroad Personnel Association's annual meeting. And while he talked of the need for change, for new attitudes and new concepts, Luna also seemed to be placing existing rules in an "untouchable" category. He put particular stress on UTU's hopes for the Illinois Central/UTU JOBS Commission—which is designed "to experiment and create new jobs, services, conditions and policies. . . . They [commission members] are not fighting about the past. They are working for the future." At another point, Luna observed that there's new business available and "we should get it. But not at the expense of men who have devoted their lives to an industry. Let us build for the future—not destroy to maintain the past." And, just in case anybody missed his point, he added: "You don't help your industry by firing men and destroying rules."

MEANWHILE, BACK AT THE WHITE HOUSE . . .

For his part, President Nixon wasn't talking about negotiations of rules—only about ways of protecting the public when negotiations fail. He was urging Congress to give "immediate priority" to the plan he proposed last February—because, he said, events have again revealed the deficiencies of existing law. For its part, however, Congress was standing mute. And standing adjourned.

New trucking rights recommended for SP

An ICC hearing examiner recommended Oct. 7 that a motor carrier subsidiary of Southern Pacific be granted virtually unrestricted common carrier authority over regular routes in Texas and Louisiana.

Examiner Victor A. von Rinteln made the recommendation in the application of Southern Pacific Transport Co. which wanted to be freed of its rail-related key point and service restrictions in the two states.

Less-than-carload shipments now transported by combined rail-motor services of the SP will move exclusively by the motor subsidiary if the application is granted.

American Trucking Associations and 16 motor carriers opposed the application. Supporting were 200 shippers.

Adoption of the recommendation would allow Southern Pacific Transport Co. to operate over 114 regular routes in the two-state area completely separate from SP operations. Among the routes newly authorized are runs between Houston and San Antonio and Dallas and Austin.

"Although the public interest has an important stake in the maintenance of intermodal competition," said von Rinteln's report, "it is not the purpose of the Interstate Commerce Act to protect independent motor carriers at all costs where a grant of authority to a rail subsidiary is unlikely to result in undue restraint of competition and where the public interest requires services which the authorized independent motor carriers are not providing except to where it suits them."

The examiner pointed to the "inability or refusal" of existing truckers to provide "reasonably efficient and responsive" service for small shipments.

No longer do independent motor carriers face the prospect of competition for small shipments from railroads.

He said the inadequacies of existing motor carriers in the area ranged from the "refusal or failure of a number of carriers to provide regular less-than-truckload services at small intermediate points to more complex situations where regular LTL services are provided but are not fully responsive to the needs of the shippers."

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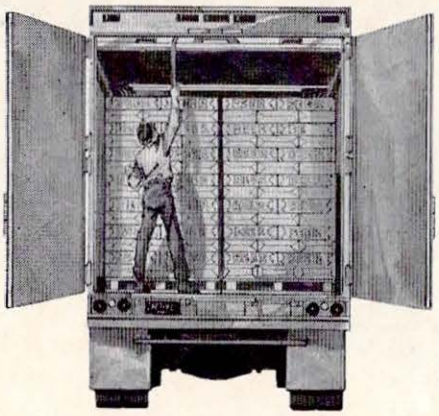

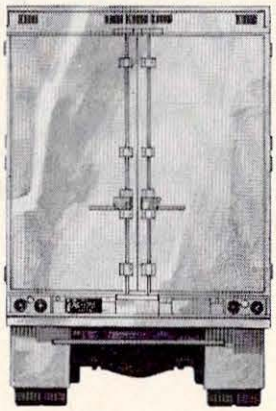

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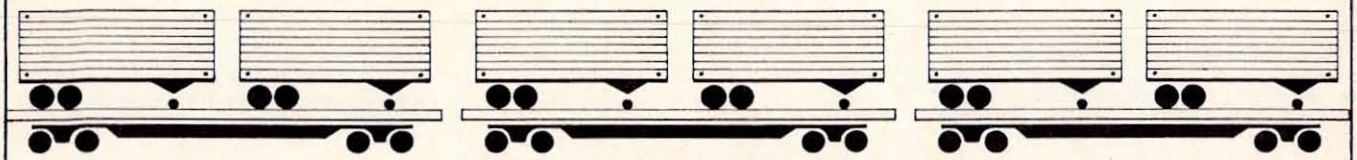

The New Aeroquip barrier automatically advances to hold retreating loads and prevents voids in the cargo.

The new CAMUS I (**C**aptive **A**djustable **M**ust **U**se **S**ystem) is designed to store in the roof of the trailer for unhindered loading. When loading has been completed, the trailer doors cannot be closed until the barrier is down.

Using the CAMUS I barrier is as easy as closing the trailer doors. By grasping a strap, the device is pulled out and down from the roof (shown in photo at right), then advanced to the face of the cargo. The barrier automatically locks in position, providing rigid confinement against rearward movement of cargo. Should the load retreat from the barrier during transit, the barrier follows and maintains its rigid confinement of the cargo. Using CAMUS I reduces the need for disposable dunnage and eliminates the need of shoring beams, plywood, gates or for stepping down of the load. For more complete information, write for Bulletin CCB-18, Aeroquip Corporation, Industrial Division, Jackson, Michigan 49203, subsidiary of Libbey-Owens-Ford Company.

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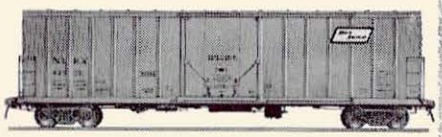

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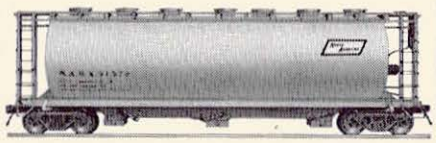

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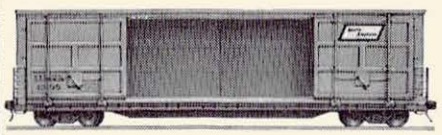

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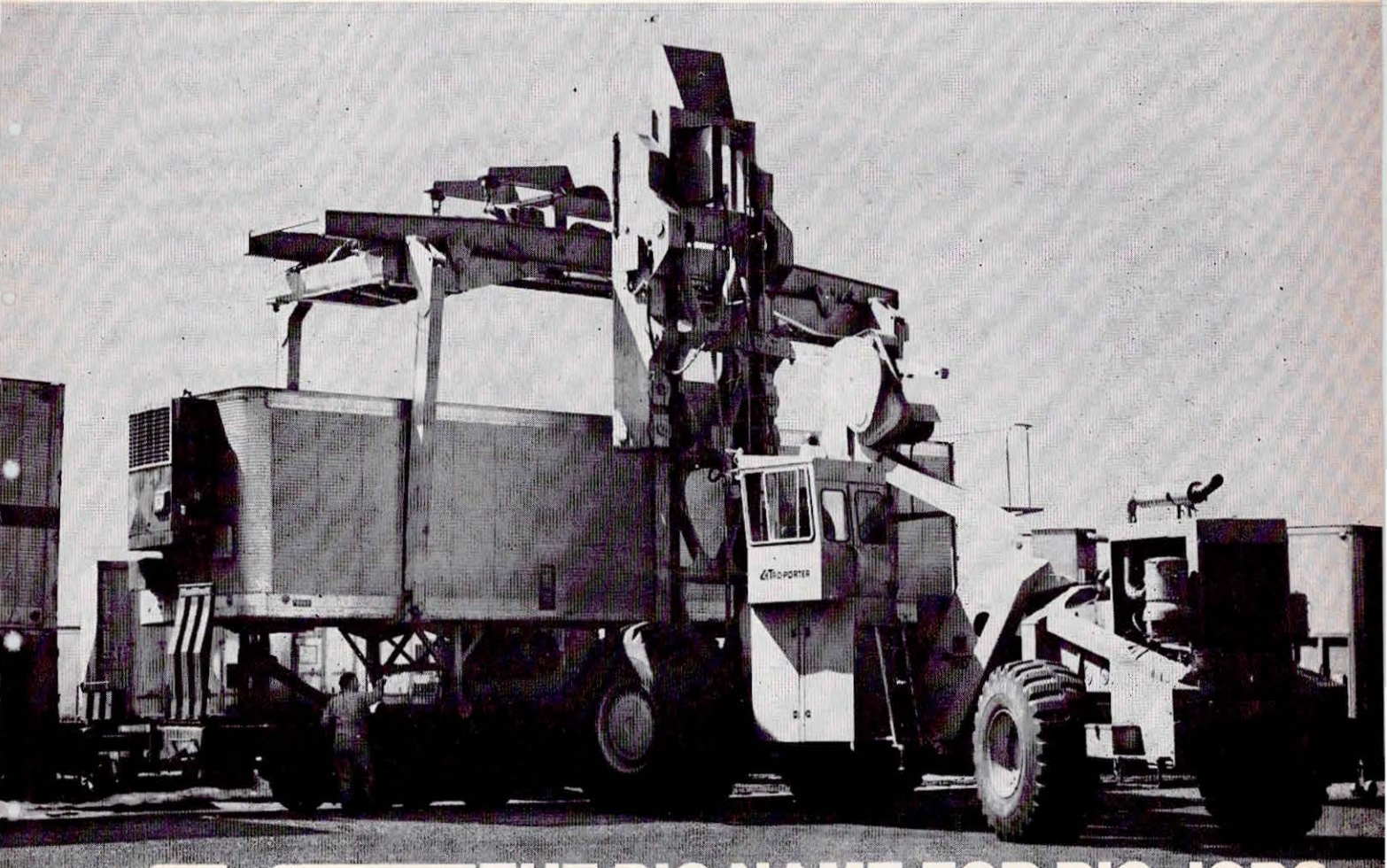

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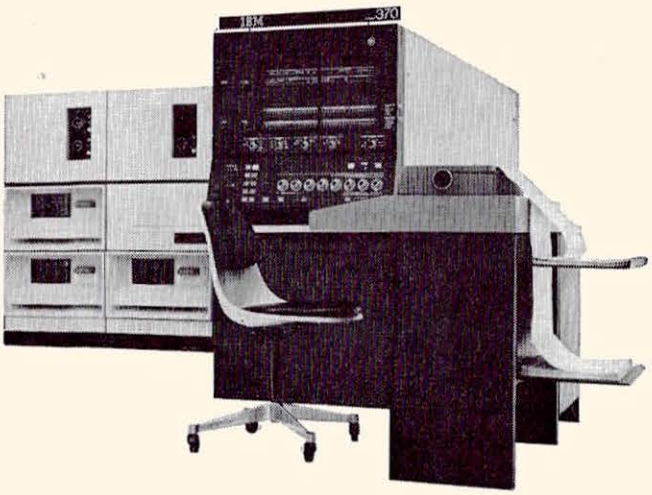

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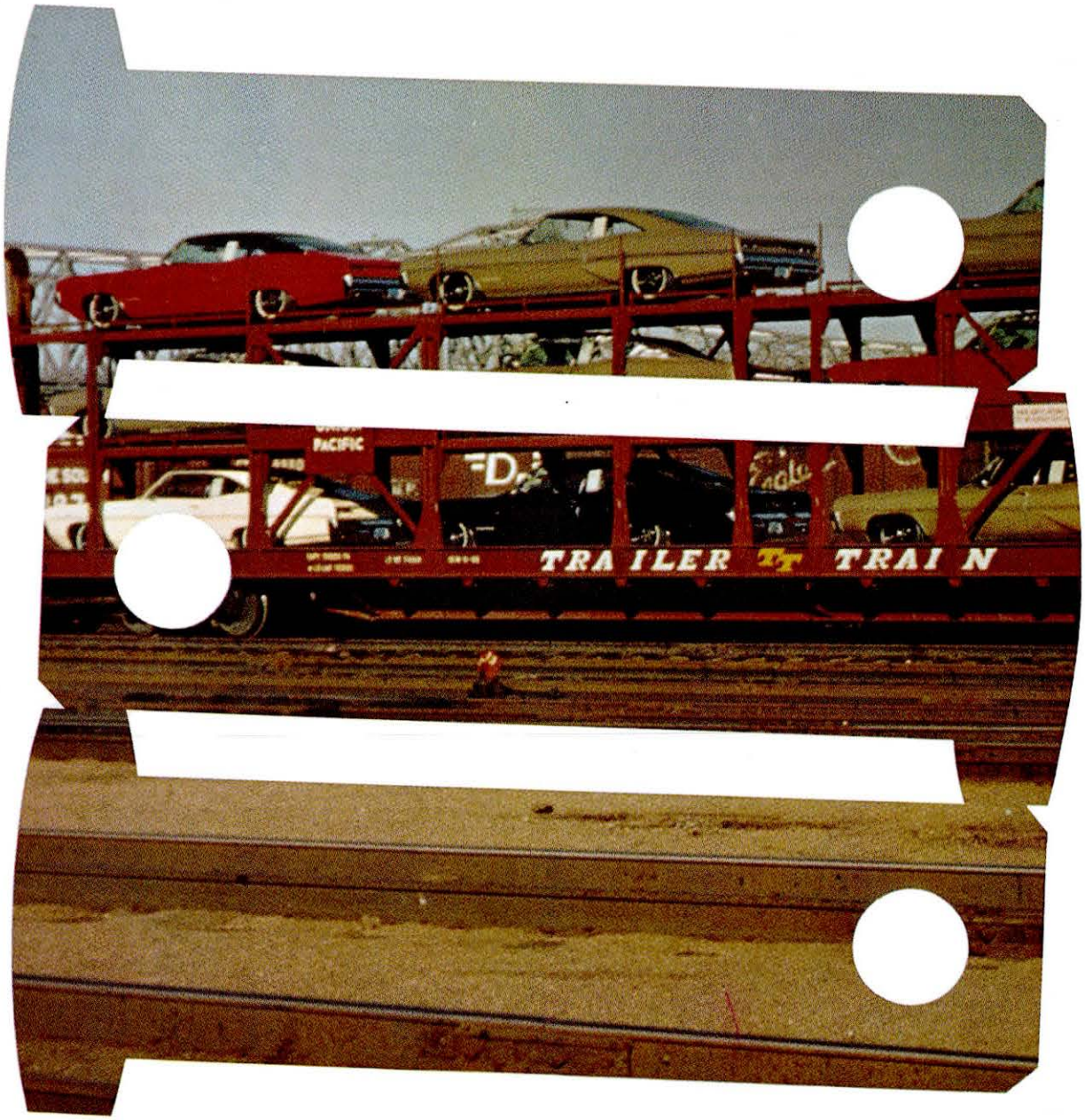

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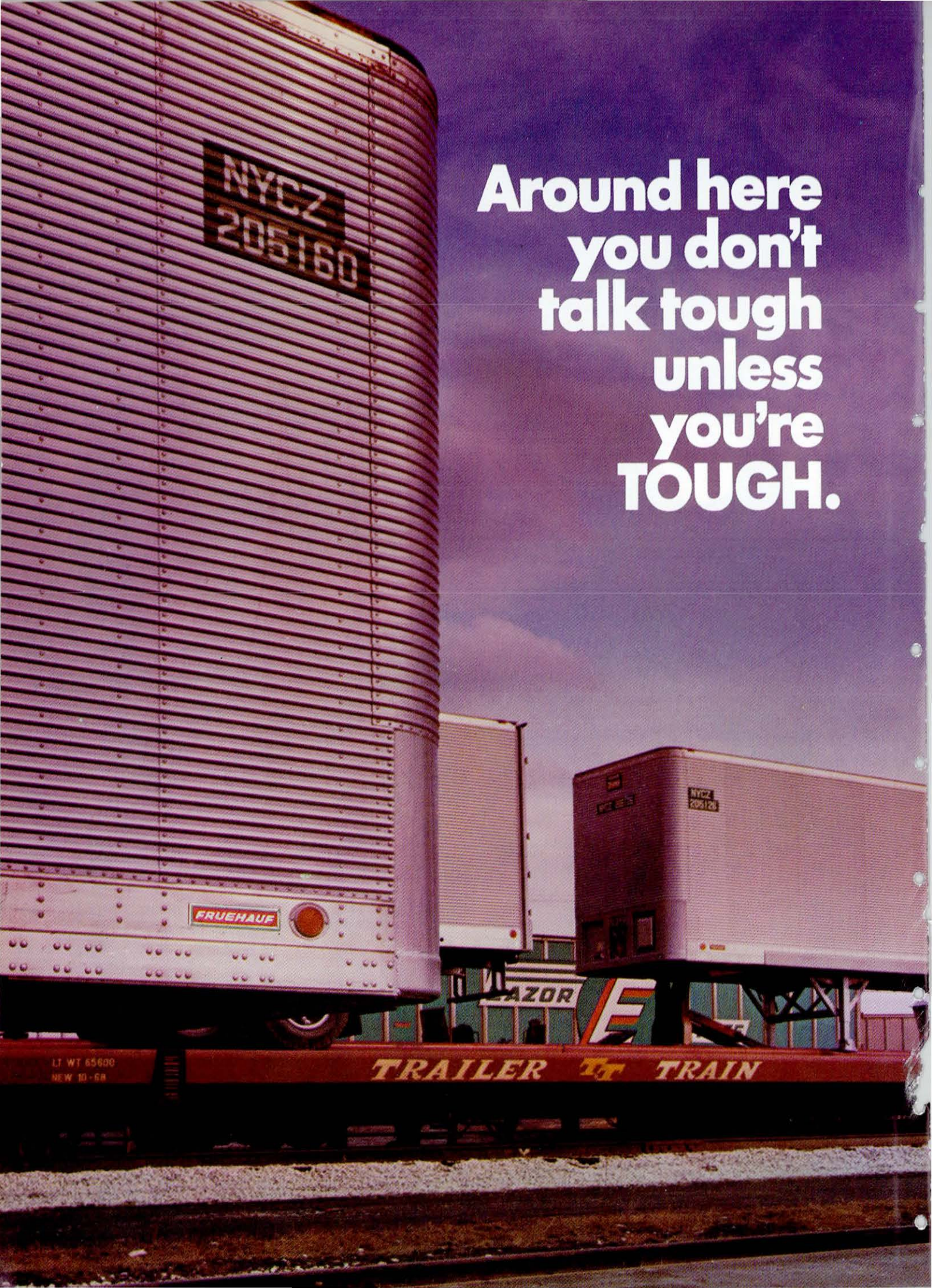

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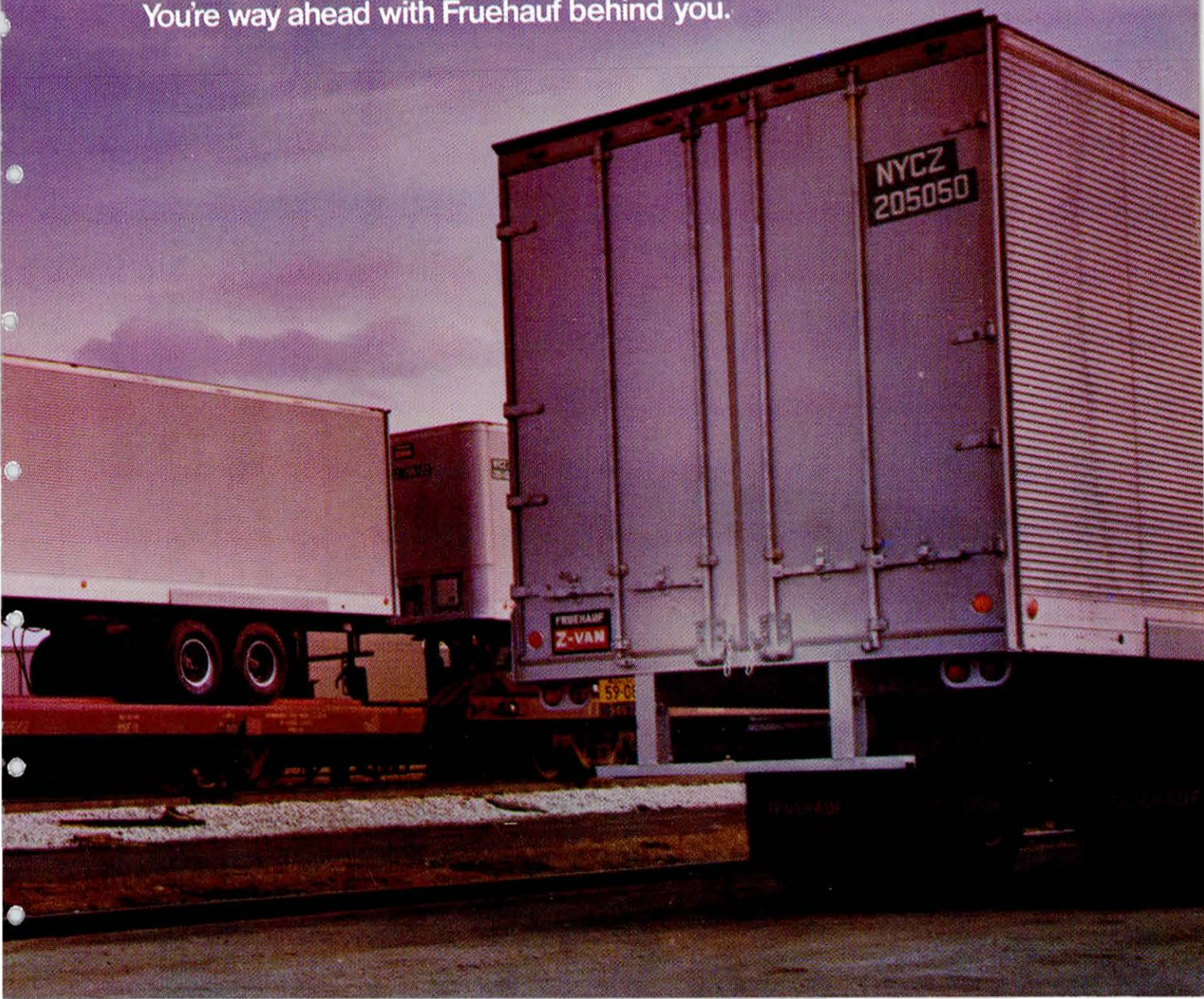

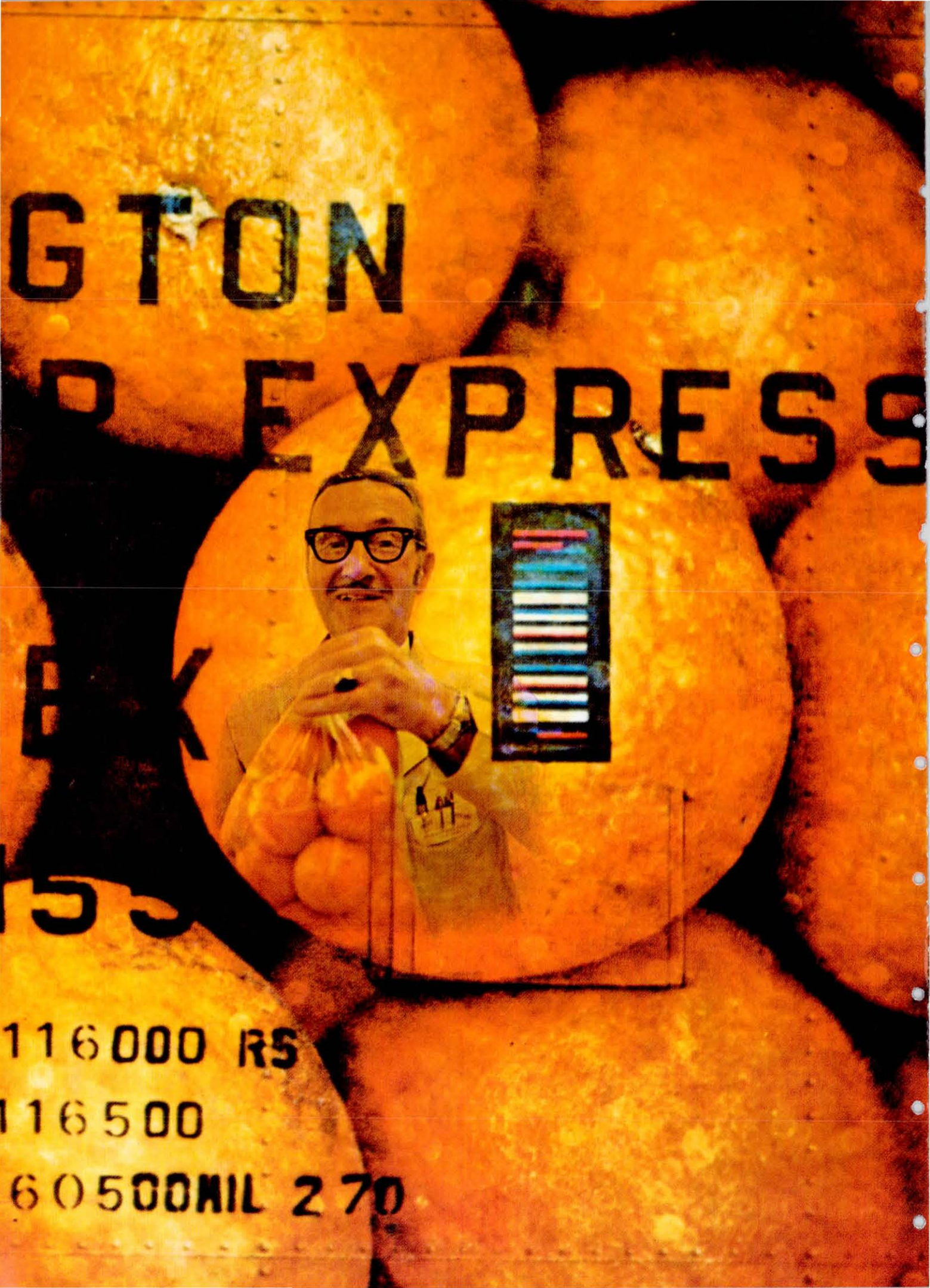
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We go by the book and it doesn't use the word "@!*4†"

We've rewritten the book many times in the last six years (and doubled the number of trains). This wholesale rescheduling was done to better meet the needs of our customers. But it doesn't mean much if we don't deliver on time. We've devoted ourselves to whipping late-delivery problems for most of the last decade. We're about to put even more potent weapons to work. We aim to be known to every shipper as "The Dependable One".

†*Late. It's a four-letter word at* FRISCO

ST. LOUIS - SAN FRANCISCO RAILWAY COMPANY
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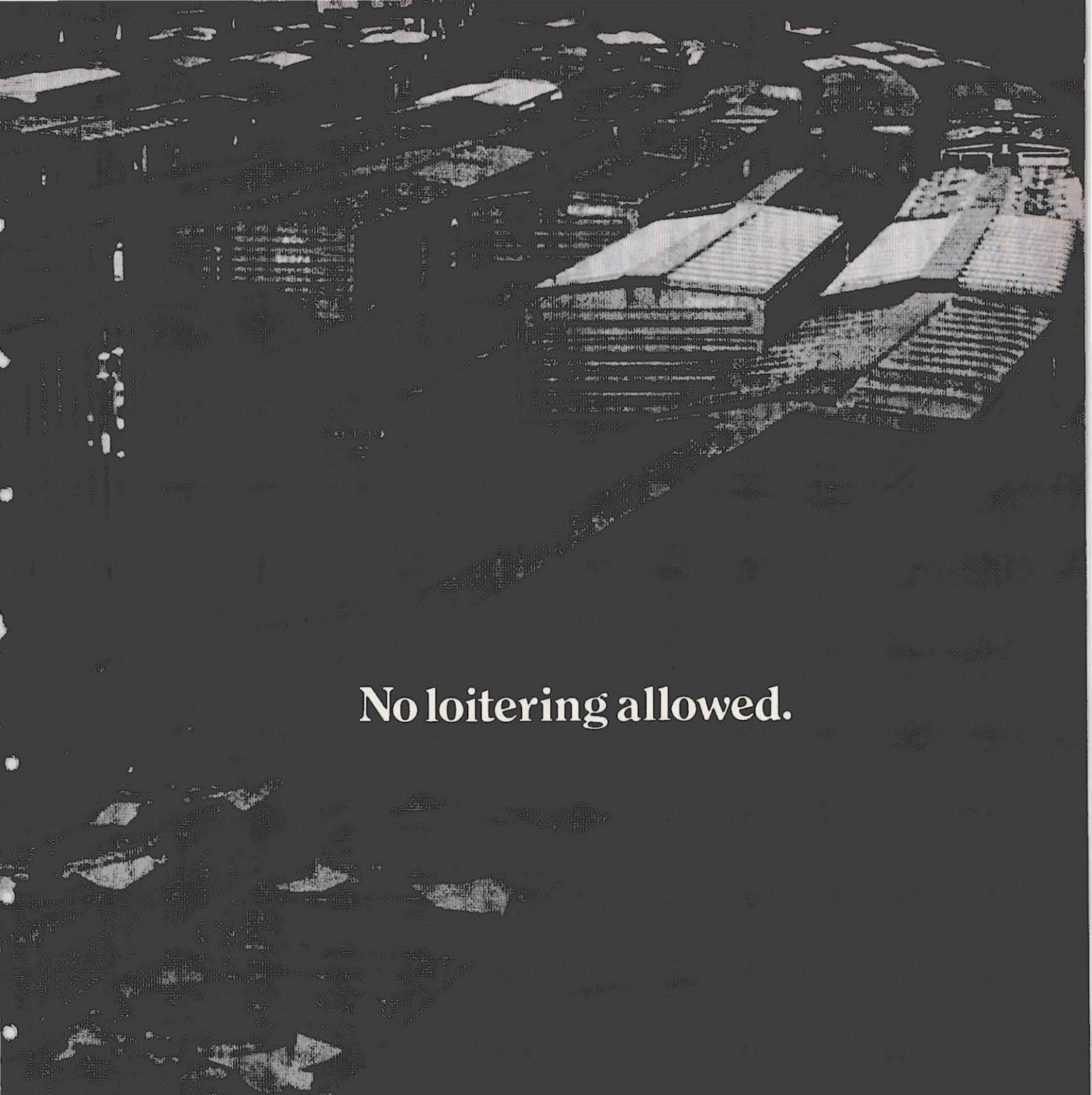


No loitering allowed.

It used to be that when one of your cars went off to a foreign line, that's where it could stay for weeks.

So we got together with the Association of American Railroads (AAR) to work on a way to prevent that.

What we did was put the world's largest information network to work on one of the railroads' biggest problems.

And helped the AAR set up a computer-communications system (called TRAIN) that could keep tabs on up to a million cars in interline movement.

Today, the AAR is using our network in this important step toward better car utilization. And you can use it to do the same.

For details, phone your local Bell Company Communications Consultant. Or call our National Railroad Coordinator Bob Maher collect at (212) 393-3960.

The American Telephone and Telegraph Company and your local Bell Company are continually coming up with new ways to help keep your cars moving.

Instead of just sitting around.

There's a new citizen in Billings.

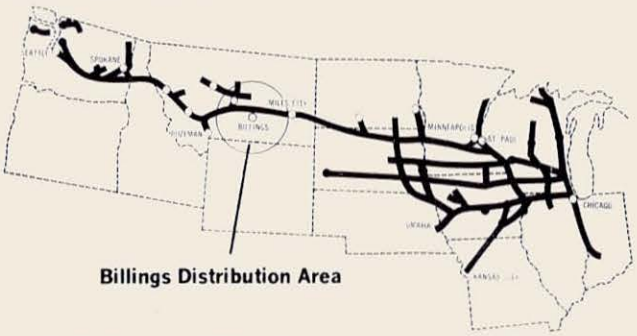
And who is this new citizen? It's us, the Milwaukee Road. And we intend to be a GOOD citizen too!

We're restoring competitive rail service to this important distribution center, competition which was eliminated when the Burlington Northern merger became a reality.

And we're providing an additional rate-making railroad to help make this service more competitive.

Carload traffic originating or terminating at Billings, Montana, as well as part-unload traffic with a stop-off at Billings, can now be routed via the Milwaukee Road.

In addition to being new in Billings, we have eleven new gateways open to the interchange of traffic with the Burlington Northern, traffic formerly restricted to the Twin Cities.

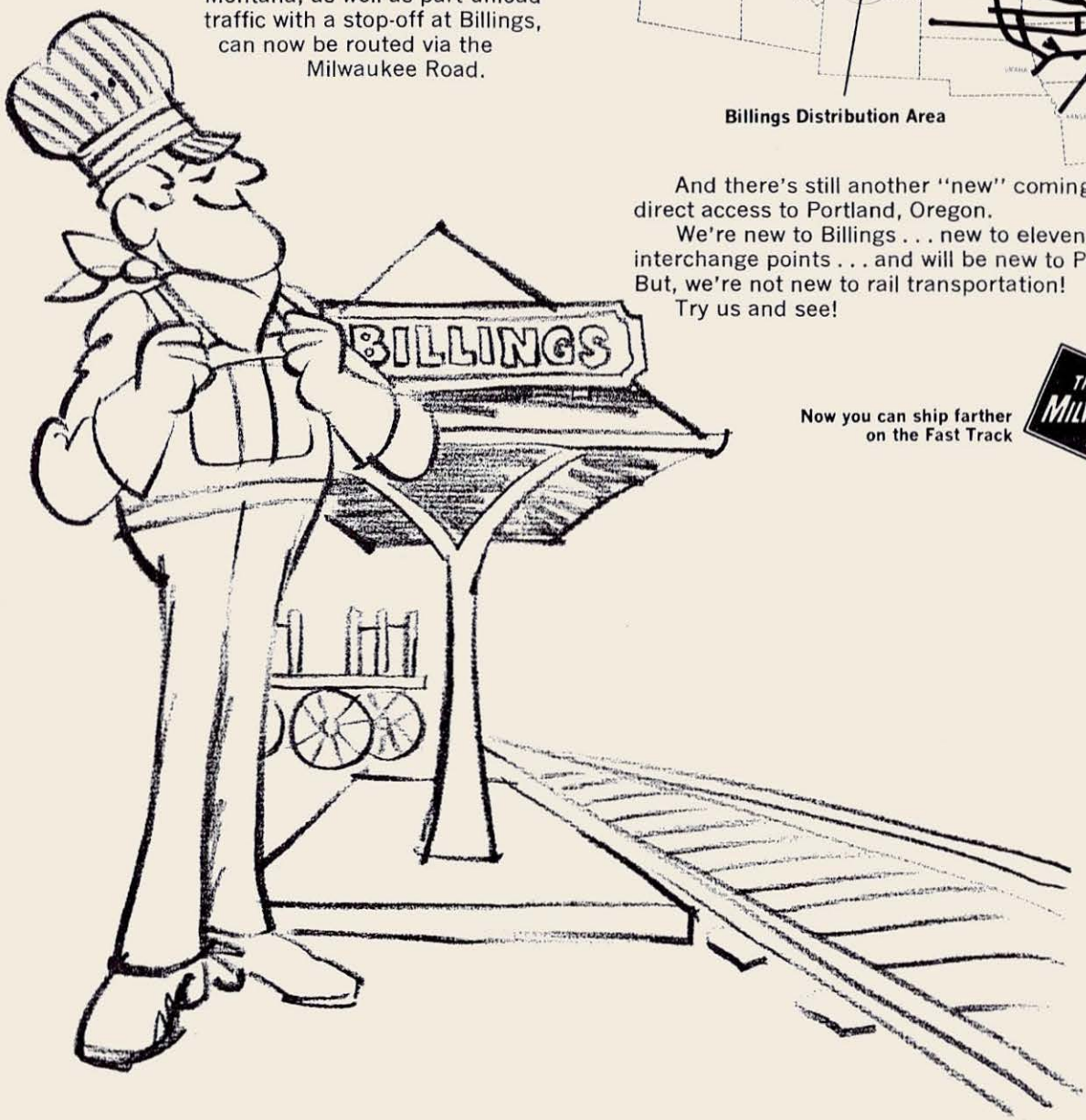


Billings Distribution Area

And there's still another "new" coming to us—direct access to Portland, Oregon.

We're new to Billings . . . new to eleven interchange points . . . and will be new to Portland. But, we're not new to rail transportation!

Try us and see!



Now you can ship farther on the Fast Track

THE MILWAUKEE ROAD

NEWS

Magnuson, introducing two bills, cites freight-car needs

"Mr. President, I introduce for appropriate reference two bills relating to the railroad industry. The first would create a quasi-governmental, nonprofit corporation to acquire and maintain a pool of general service freight cars to be made available to shippers in times of car shortages. The second bill would amend the Interstate Commerce Act to authorize the Secretary of Transportation to insure the railroad equipment obligations of railroads and their car-furnishing subsidiaries in order to promote acquisition of equipment. . . . Mr. President, in large measure railroading is a sick industry. . . ."

With these words, prestigious, powerful Warren A. Magnuson, chairman of the Senate Commerce Committee, on Oct. 13 introduced two major pieces of legislation designed to help get a "sick industry" back on its feet.

The National Freight Car Corporation Act (S. 4463) was drafted through efforts of the National Industrial Traffic League. The Railroad Equipment Obligation Insurance Act (S. 4464) is the work of the Association of American Railroads.

Hopes that the two bills would get a hearing and possible action in the post-election session of Congress were dashed when Senator Magnuson commented, "I would like to make clear . . . that I consider the two bills to be 'working papers.' They and any other reasonable ideas that come to light will be the starting points for our work on the subject next year."

Initial capitalization of the National Freight Car Corporation would not be through U. S. funding but by rails through a 50-cent per-diem surcharge on all foreign "plain unequipped boxcars, AAR mechanical designation XM" on their lines.

No railroad would make total payments in excess of 10% of the amount paid by all railroads.

The surcharge would be payable on the tenth day of the second month after the month the charge accrues. Surcharges would begin accruing the first day of the month following the passage of the Act. They would continue until the new corporation's board determines that not less than $10 million nor more than $30 million will be due or will have been paid to the corporation as of a certain date. The surcharge will then cease of that date.

The surcharge would be repaid to rails through the issuance of non-dividend stock and 30-year debentures bearing 8% annual interest.

The corporation would be managed by an 11-man board of directors, with six railroad representatives, two shipper representatives appointed by the President, and three government representatives, including the ICC chairman. Should this board want to increase the corporation's capitalization, it may reinstate the surcharge by a vote of not less than nine of the 11 directors. Additional stock and debentures would be issued as in the case with the original issue.

> "It now appears necessary to embark upon a totally new approach which both encourages and assists the railroad industry in acquiring new cars through the private financing mechanism and insures improved utilization."
>
> **U.S. Senator Warren Magnuson**

Upon unanimous vote of the corporation's board, it could incur debt; and such debt would be "fully and unconditionally guaranteed both as to interest and principal by the United States of America."

Charges for cars from the pool will be assessed on the same basis and at the same rates as the charges assessed for ue of railroad-owned cars at the same time, except that corporation charges will be augmented by a surcharge in the form of a percentage, which the corporation's board will establish from time to time. This surcharge will be set at a rate which the board determines will pay sufficient income for the corporation to discharge its costs and expenses, including debt carrying charges.

Further, the corporation's board could establish "just and reasonable car service rules . . . as shall . . . best serve the purposes for which the Corporation is established." These rules would have precedence over all other conflicting rail or ICC rules.

The second bill, The Railroad Equipment Obligation Insurance Act, has a famous prototype—Title XI of the 1936 Merchant Marine Act, which through mortgage insurance promotes the construction of U. S. Flag merchant vessels, a program regarded as highly successful by most observers. By coincidence, the ceiling on government aid under that same Title XI was increased in mid-October from $1 to $3 billion.

Under the rail equipment insurance program, conditional sale agreements, equipment trust agreements, and other obligations of rails and their 80%-owned car-furnishing subsidiaries would be insured through a revolving fund. A premium of ¼ of 1% per year on the unpaid principal balance of each insured obligation would be charged to build up the fund. All obligations would be secured by the rolling stock financed and must be payable within 30 years.

The unpaid principal of the equipment obligations insured and outstanding could not at any one time exceed $3 billion.

DOT, through FRA, would administer the fund.

The practical effect of such Federal insurance, said one prominent broker who specializes in placement of equipment obligations, would be to enable railroads with "BAA" ratings (i.e., financially marginal) to obtain equipment-obligation financing at interest rates of roughly 8.5%. These same "BAA" roads were unable to obtain financing at rates of 10 or 11% last spring. More solvent roads would not necessarily need recourse to the fund, said the broker. In any case, he added, the government fund would virtually be insulated from default, since the short supply of equipment would insure in itself a market for the equipment when resold by the creditor.

TOFC/COFC in the 70s: How big

Despite a leveling-off of traffic—due to the general economic slump, plus labor unrest—most piggyback/container men retain their long-range optimism. But they say more money must be invested in terminals and equipment.

By GUS WELTY, Senior Editor

The biggest surprise in TOFC/COFC this year isn't that business is down. The biggest surprise is that it isn't down more.

And the biggest non-surprise is that the relatively hard times of 1970 have done nothing to (1) dull the competitive edge of TOFC/COFC sales-and-service people, or (2) make them take a second, more conservative look at long-term forecasts for continued TOFC/COFC growth.

● **What happened.** There are these facts to consider:

—Through the third quarter of 1970, TOFC/COFC loadings have run behind the totals for both 1969 and 1968 as reported by the AAR. Over-all, trailer-loadings are down more than 3% from '69 figures: they have slipped a fraction of 1% from '68 levels. Mail-and-express loadings, however, have continued to climb. They are almost 4% above 1969 totals, and they are 20%-plus above '68 figures.

—Gains and losses don't seem to show any particular pattern, on an individual-road basis. Over the past decade of TOFC/COFC development, just about every road maintained a steady string of increases. Now, there are winners and losers, and roads that are just holding their own.

—TOFC/COFC has not suffered in quite the same way as rail traffic generally, on the two-year comparison. While piggyback is holding almost even with 1968, total revenue carloadings are down about 2.6% from 1969 figures and about 3.4% from those reported in '68. The revenue ton-mile estimate shows a fractional drop from last year's totals, though it's up from 1968 levels.

● **Why it happened.** Then, there are these facts behind the facts:

—The level of the nation's economic activity dropped a bit farther, and has stayed there longer, than expected. Both TOFC/COFC and motor-carrier business could be expected to suffer, and they have. Both services are competing for essentially the same traffic and it's a type of traffic which is extremely responsive to economic ups and downs.

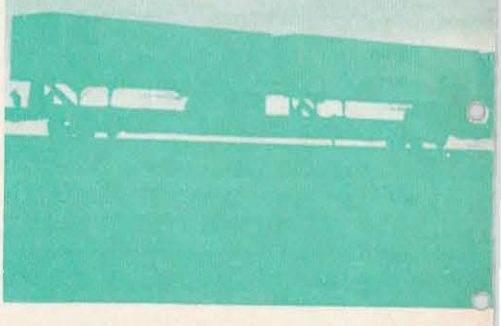
—Labor troubles in both the rail and motor carrier industry have been no help at all (to say nothing of the as-yet-unmeasured impact of the General Motors strike). Last spring, Teamsters and truckers battled their way to new contracts, but not before the industry was gripped by a strike/lockout which had lasting effects at certain key points including, importantly, Chicago. For a good part of the year, too, there has been unrest in the railroad industry, with strikes and threats of strikes involving the biggest of the rail unions. TOFC/COFC business is not the kind of traffic a shipper likes to have tied up in transit, particularly when the tieup is unexpected. And so there's not much doubt that railroad labor problems have done their share to depress piggyback.

—Through their own action and inaction, railroads have probably made their own individualistic contributions to what has happened to piggyback. Part of this is positive, part not. Railroads, for instance, cannot be faulted for trying to weed out less-than-profitable services which crept into the TOFC/COFC mix during those years of the growth boom. At the same time, there's a suspicion that some business has been lost either because (1) terminal-handling facilities have not been improved fast enough to keep pace with growth, or (2) increased volumes of business have had an adverse effect on dependability and speed of service, in line-haul movement as well as in terminals.

—There is still some shaking-down among piggyback's various plans, with Plan 2 and its modifications coming on strong and the other plans not really showing much up-or-down movement. Plan 5, the rail/motor plan oft-described as having tremendous potential, is limping along with no great show of strength, and there are indications that at least some roads are looking for ways of promoting intermodal service other than through the conventional Plan 5 type of arrangement.

● **Little pattern visible.** Spot checks of major TOFC/COFC roads show little in the way of a pattern for '70. At Illinois Central, for example, piggyback measurements show sharp increases this year and there's every confidence that the trend will continue. At Rock Island, 1970 growth forecasts had to be revised downward even as RI people maintained their confidence for 1971 and beyond (see following stories).

	1964
Plan 1	299,000
Plan 2	467,800
Plan 2½	44,300
Plan 3	281,200
Plan 4	68,100
Plan 5	38,700
Other	17,700



Two other western roads carry through on the non-pattern theme: One is experiencing a flat growth curve on volume but a substantial increase in revenues; the other's volume is down, and even its revenues have fallen sharply on a percentage basis.

A major eastern road—which, by the way, does show TOFC/COFC increases for the year—has no great faith in a late-year pickup of any substantial proportions. But again, its confidence in future TOFC/COFC gains remains strong.

Conversations with piggyback sales-and-service officers, by and large, are more loaded with the "if" factor this year than in any recent period.

● **The year is a puzzle.** One road's top TOFC/COFC man reflects on

will it be?

THE RECORD SO FAR

Number of trailers and containers terminated, by plan

1965	1966	1967	1968	1969 (estimated)
322,300	328,700	270,900	276,000	263,000
533,600	621,300	652,200	657,600	698,000
53,400	69,200	117,000	462,500	512,000
369,500	451,300	427,200	169,300	170,000
76,100	103,600	121,000	131,600	144,000
48,800	54,700	54,200	57,200	58,000
28,800	57,400	68,700	141,000	170,000

Six piggyback plans—and what they mean

—**Plan 1:** Rail transportation of motor common-carrier trailers.

—**Plan 2:** Complete transportation service, with railroad providing trailers and cars and drayage to and from ramps, as well as loading and unloading of freight when included in rates.

—**Plan 2½:** Rates apply from ramp to ramp with customer assuming cost of drayage at origin and destination terminals; railroad provides trailers and cars.

—**Plan 3:** Rates apply from ramp to ramp; shipper provides trailers and assumes cost of drayage at origin and destination terminals; railroad provides cars.

—**Plan 4:** Shipper provides trailers and cars and drayage and assumes cost of ramping and deramping trailers; on request, railroad will provide trailers, cars, ramping and deramping at published tariff charges.

—**Plan 5:** Joint rates and routes with motor carriers.

1970 this way: Early in the year, there was the impact of the Teamster/trucker labor trouble, but in perspective—taking into account the strike/lockout and the general state of the economy, piggyback did rather well. The third quarter of '70 dawned with a gratifyingly good July. But August was something of a disappointment. Ordinarily, there's an undercurrent of strength beginning to be felt in August, if there's to be an upward movement of the economy in the fourth quarter. This year, that undercurrent was not present. Even after Labor Day, there was relatively little of the business resurgence that might have been expected in a more normal year. Then, of course, there were the railroad industry's labor difficulties—with both the fireman-manning dispute and wage disputes with major unions coming to a head at almost the same time. There was also that GM strike, with business and economic implications stretching beyond the automobile industry itself.

"If I had to guess," one TOFC/COFC officer sighs, "I'd say we could have counted on some upturn showing in October. If GM and the Auto Workers reach a reasonable settlement, there could be a resurgence of confidence, particularly with the holidays coming up. But then, we also have to figure on the impact of a railroad wage settlement—and what that could mean in terms of what we're all going to be able to do to attract more business by improving service."

● **What's ahead?** As for 1971—and the '70s generally—the experts are not really agreed on how far piggyback can go, or rather on how far railroads will carry it.

Under optimum conditions, TOFC/COFC people say, trailer and container business could account for anywhere from 25% to 50% of merchandise-traffic revenues. But, they quickly add, this kind of revenue participation can be attained only if railroads go after it—and that's going to (1) cost money, and (2) require a changing of attitudes in certain quarters.

The money—most of it—will be for expanded TOFC/COFC terminals and for the equipment that will provide both speed and random-access in loading-unloading. The attitudes are those of management and rail labor and the shippers who use piggyback:

—From management, TOFC may need a commitment that service comes first. It's service that has brought piggyback as far as it has come today.

—From labor, TOFC/COFC may need a commitment to flexibility in train-manning.

—From shippers and receivers, TOFC/COFC needs a commitment to cooperation in controlling costs, specifically those local-handling costs that can suddenly turn a sweet operation sour.

What it boils down to is a meaningful, if unspecific, observation from one TOFC/COFC veteran: "Piggyback can be just as big as we—all of us—are willing to make it."

TOFC/COFC in the '70s

IC sees big future in intermodal service

If Illinois Central can do what people like Paul Reistrup and Frank Blankinship think it can do, intermodal operations—TOFC/COFC—could become the biggest single contributor to IC revenues and IC profitability. The potential, they believe, is that great. But, they believe with equal fervor, it will be realized only "if we start doing business differently."

Reistrup is IC's vice president-traffic (and former vice president-intermodal services). Blankinship is general manager-intermodal services. Together, they make an impressive presentation—one that says that TOFC/COFC revenues could account for 25% of IC's freight revenues (excluding coal) within five years, and that TOFC/COFC could go as high as 50% of the total perhaps by 1980 (RA, Sept. 14, p. 49).

● **In '71, a 25% increase.** Thus far in 1970—despite the economy's slowdown and despite the devastating truck strike/lockout last spring—IC is showing an increase of about 25% in TOFC/COFC revenues on a trailer-loading jump of something under 20%. By the best-available current estimate, IC will close out 1970 with its first 100,000-trailer-loading year.

Actually, IC wasn't hurt as badly as it could have been by the strike/lockout situation. The first two weeks of April were disastrous. But the road was able to keep its Chicago terminal open for Plan 2½. For about six weeks, it ran the facility with supervisory personnel, and when customers found out that IC was working, business began picking up. Finally, union members began returning to their jobs in advance of a formal settlement, and IC was able to get operating again with Plan 2. At one point, IC was showing increases in piggyback of about 38%, and intermodal-services people estimate that the road has been able to keep about half of the business it picked up during that time of Teamster labor problems.

● **The TOFC/COFC of tomorrow.** What does IC see, for TOFC/COFC's future? As they say, something different. Among the possibilities:

—A Turbocontainer-train. IC is already working on this, with a potential builder and with a prospective shipper.

—Great expansion of service with shorter, faster piggyback trains between key system points.

—Rent-a-train for TOFC/COFC, with a single user, or with a consortium, or with some new agency which might be called a super-forwarder as the renter.

—Something akin to the A. T. Kearney Minipiggy concept, in a new version which IC people say looks good on paper, though they are uncertain as yet as to equipment costs.

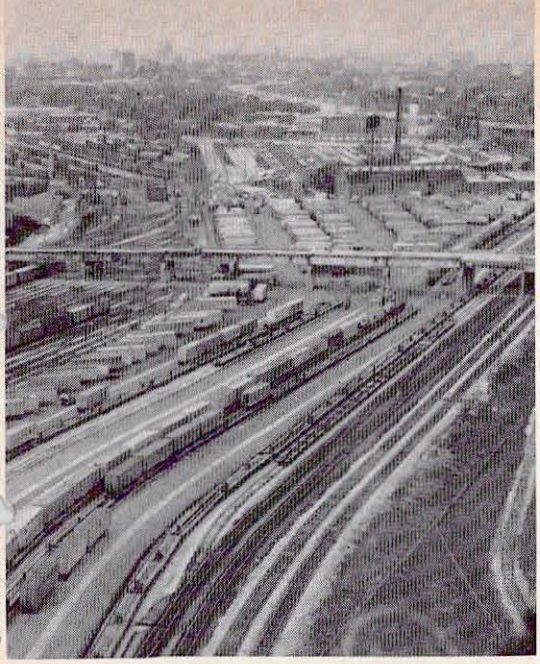
—Expansion of rail/trucker coordination, probably not through a conventional Plan 5 but rather through a combination of rail Plan 2½ and a motor carrier's own tariff.

—A new tariff for container movement, taking containerization out of TOFC tariffs which weren't intended to cover container operations in the first place.

—Development of the port of New Orleans as a major container port, not matching the North Atlantic or Pacific Coast ports perhaps but still tops on the Gulf Coast.

Reistrup and Blankinship make no secret of their hopes for JOBS Commission help for tomorrow's TOFC/COFC operation. Dick Wiersema, director-service planning and analysis in the intermodal services department, puts it this way: Some of the new services IC believes could be profitable traffic-builders—those shorter, faster and more frequent piggyback trains, linking such points as Chicago, Memphis, New Orleans, St. Louis, Louisville, Indianapolis, Jackson, Miss.—can only be offered at an attractive rate and at a profit if operating costs can be kept under control. So it's significant that two "mini-back" operations were among the first proposals to go under study when JOBS Commission began its joint management/union search for new profit-and-job-creating services.

● **"Fastback" in the black-fast.** IC's intermodal department has a strong talking point in this area—because one of the big factors in TOFC/COFC growth thus far has been the success of the "Fastback" solid-piggyback trains, which started as a Chicago-Memphis operation and were later extended to serve New Orleans. The original marketing forecasts said the "Fastback" operation could reach the breakeven point in a year. But the forecasters were wrong—because the "Fastback" broke into the profit column in half that time. The early days were lean ones—more than once, a "Fastback pulled out with a single trailer or two. But service built the business, when IC proved it could deliver.



IC'S INTERMODAL TERMINAL in Chicago is flanked by a waterway and an expressway. Two cranes gives the terminal speed and flexibility in loading and unloading.

IC'S "FASTBACK" TOFC/COFC trains had some lean days at the start—but traffic has built up to where IC will be faced with key decisions on operating additional service.

Reistrup gives a lot of the credit for this to IC's operating department, then headed by Vice President (now Senior Vice President-Operations) Otto H. Zimmerman. "They gave us wonderful support," Reistrup says, "and we're getting the same thing today from Zim and [Operating Vice President] Jack Humbert. They actually invite you to make them operate additional service."

● **The "problems" of success.** "Fastback" success, as a matter of fact, is bringing IC to exactly that point—where additional service will be a "must."

A couple years ago, Reistrup reflects, the piggyback trains were running with perhaps 20 trailers: "The service was great. You could take the curves without slowing down for so long, and you could get quick acceleration. In the terminals, even with circus-unloading, you could unload a train in a half-hour or so."

Now, business is up—to a high, thus far, of 93 trailers on a "Fastback." Obviously, Reistrup points out, "you take longer in the curves, and you don't accelerate so quickly. And you get delays in the terminals." Just as obviously, IC is going to be faced with a big decision on running another train—and several decisions on terminal improvements.

This brings Reistrup back to that point about realizing the potential in TOFC-COFC—and about doing business in a different way.

"We can't allow a fixed operation to be detrimental to growth," he declares. "If piggyback doesn't grow, it will be because we have not allowed it to grow."

● **Keeping up-to-date.** Fortunately for IC's TOFC/COFC marketing/sales people, VPO Jack Humbert is strongly oriented toward the short, fast, frequent concept of rail train-service. Also fortunately, IC management has recognized the need for keeping the terminals modern. The new intermodal terminal at Chicago is operating with two lift-on/lift-off cranes. A side-loading/unloading unit will go into service at Memphis early next year. And terminal improvement, with relocation of the facility in the docks area and installation of a crane or side-loading/unloading device, is scheduled for New Orleans in the 1971 budget. Next in line will probably be the terminal at East St. Louis, Ill., in 1972—though IC has already been able to boost the capability of this facility by expanding into an area previously used for automobile handling, when the automobile terminal itself was moved and enlarged.

Reistrup makes no secret of his lack of sympathy for any road where TOFC/COFC growth has been stunted by failure to provide either quality train service or up-to-date fixed facilities.

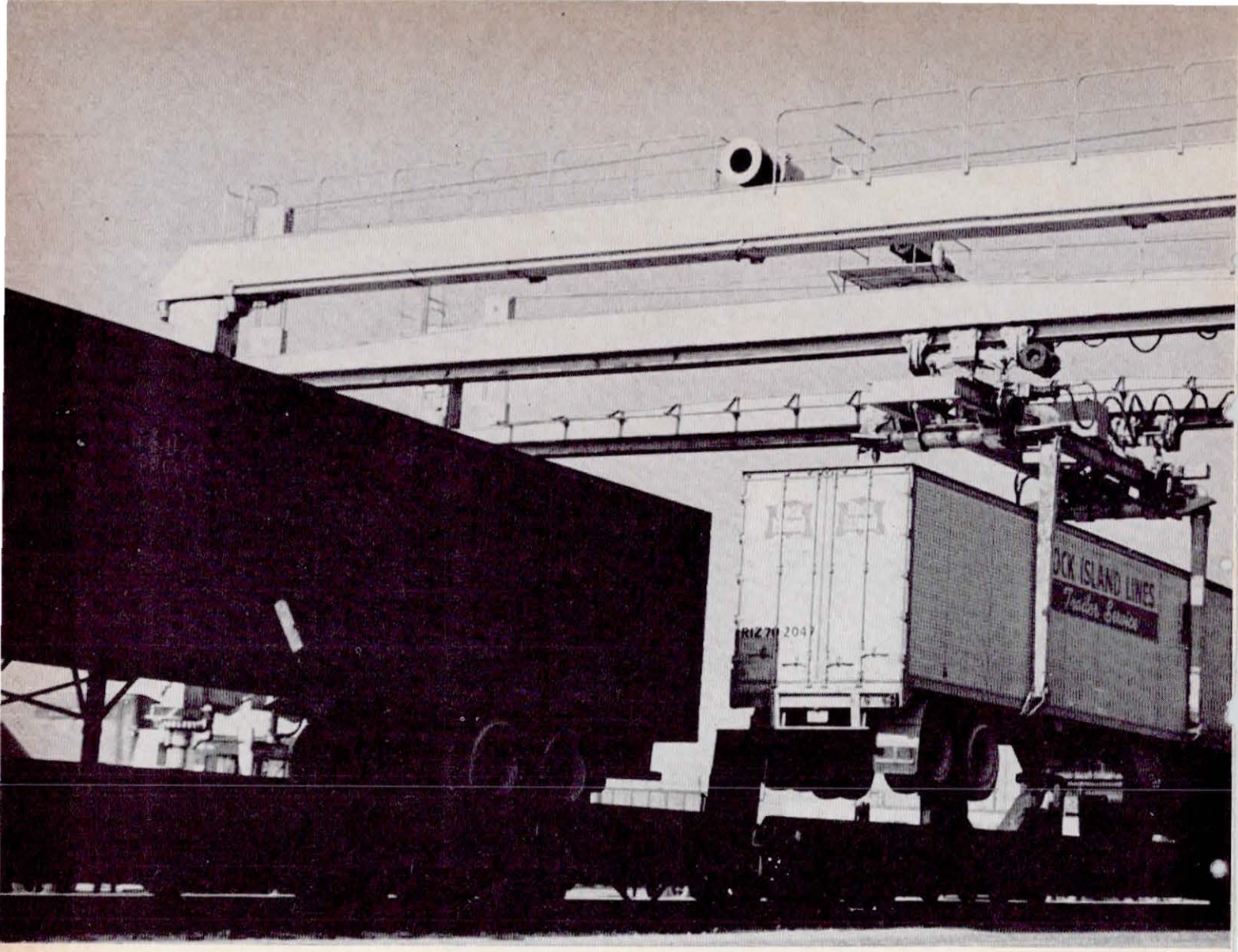
If you look at the figures, he will point out, "you'll see that it's quite possible to run a growing TOFC operation with a relatively low capital investment." On IC, he estimates, the direct investment—including terminal facilities and dedicated motive power but not including equipment-rental costs or sunk investment in route—would add up to only about $6 million. And, he adds, that direct investment will produce, in 1970, about $20 million in revenues.

Admittedly, $20 million is a long way from 50% or even 25% of freight revenues—which topped $283 million last year, including coal revenues. But Wiersema's studies on the TOFC/COFC potential do hold up, if certain assumptions are made—and, as Reistrup is quick to point out, if IC can do its part from a services-and-facilities standpoint.

● **Where's growth coming from?** Marketing analysis of traffic moving in IC territory—motor carrier and rail carload—indicates that if IC can obtain for piggyback "a reasonable market share" of motor-carrier business, it should come out about even in terms of units of traffic handled, trailer and carload.

Then, add to this the fact that average trailerload and carload revenues are about equal—despite the disparity in weights—and you arrive at the 50% long-range revenue prediction. Add to this also the hope that JOBS Commission can open the way to operating a flock of "mini-backs"—and you come to the conclusion that IC's forecasts may not really be out of line.

Reistrup and his sales people look longingly at the volume of private trucking in IC territory. They look at projected traffic increases generally over the next five to 10 years. "Without any real effort at all," he says, "you can find shippers, a lot of shippers, with five or 10 or 15 trailers a day moving between key points. That's business we're going after. Improvement in regular piggyback train service will help us get some of it. JOBS Commission could help us get a lot more.



DESPITE FINANCIAL PROBLEMS, Rock Island has kept piggyba nk terminals up-to-date. Here, a crane provides lift-on/lift-off

TOFC/COFC in the '70s

"There is still tremendous potential,"

For a railroad that needs every profitable revenue dollar it can get, Rock Island is taking a remarkably calm no-panic approach to what's happening in 1970 in piggyback.

At the end of last year, RI was looking forward confidently to another 12 months of growth, with TOFC loadings up by as much as 20%. Then came the motor-carrier strike/lockout, which hit such key points as St. Louis and Kansas City and had its worst effect at Chicago. Result: Rock Island at this point is about even with 1969 TOFC revenue figures—and the outlook is for an even finish to the year.

The impact on RI will be substantial, because over the past few years piggyback has been a key factor in RI's overall freight-revenue increases. TOFC brought in $13 million in 1965, $15.2 million in 1966, $19 million in '67, $25.7 million in '68 and $31 million last year. But through the first four months of 1970, TOFC revenues added up to just $10.5 million. And RI was ready to say that just equaling last year's totals "can be considered favorable in light of present economic conditions."

General Manager-TOFC Sales Howard S. Ownley, however, regards this year as a pause, not a plateau.

● **On the plus side:** As Ownley sees things, RI will have several positive things going for it. Its Plan 1 business is holding up well in terms of total revenues and, in fact, represents a significantly bigger part of total TOFC than in the industry generally. There is new interest, and a sizeable percentage increase, in Plan 5 traffic. Terminal improvements in Chicago and, this year, in Houston have increased RI's capability to handle growth. And a realignment of TOFC sales and operations should increase the effectiveness of the sales program.

Rock Island's Plan 1 is heaviest on two routes, Chicago-Denver and St. Louis-Denver, with smaller volumes between Chicago and the Southwest. Five years ago, Plan 1 was 75% of the total $13 million TOFC revenues. Now, Ownley estimates, it's 35% to 40%—well above the industry average for Plan 1 which now stands at 15% or maybe even less.

Plan 5 is still small in absolute volume. But Ownley detects increasing willingness to participate on the part of short-haul and intermediate motor carriers, particularly those serving communities within a 150 to 200-mile radius of Chicago. RI/trucker cooperation on such trailer movements as

capability at Chicago. The road is mounting a campaign against rising terminal costs.

says the Rock Island

South Bend-Denver or Fort Wayne-Denver, he says, is showing potential for developing additional revenue, "and it's profitable business."

● **"Profit" is the word.** Profitability in the broad sense is also getting top-level attention in the TOFC department—and Ownley freely concedes that there has been some pruning of piggyback traffic which turned out to be less-than-satisfactory profit-producers. He is also mounting an offensive against rising terminal costs—though there is only so much an individual carrier can do, such as concentrating on TOFC traffic moving under ramp-to-ramp rates.

It's in this area that RI's TOFC people are hoping for customer cooperation.

"If we're going to continue to provide pick-up and delivery service on piggyback," Ownley declares, "we have to get it across to the customer that he can help in reducing costs—for instance, by scheduling trailers in and out to minimize loading and unloading waiting-time, and by equipping his docks to load and unload faster. Nothing can be done to reduce the hourly wage rate of the people involved—so the only alternative is to reduce the time required."

Internally, Rock Island has made changes which tend to make TOFC more a part of the total railroad sales function. In the past, TOFC sales had been more-or-less independent of the traditional carload freight-sales organization. Now, however, TOFC reports through Vice President-Traffic A. F. Hatcher. In Chicago, Ownley has sales managers for mail and express, perishables, and forwarder traffic, in addition to a manager-motor service. In the field are five trailer-sales coordinators—on-line in Chicago, St. Louis, Memphis and Denver and off-line in New York. These men sell—but their primary job is to operate as the title implies, coordinating efforts between field sales personnel and the TOFC sales organization headed by Ownley. They report on a joint basis, to Ownley and to the road's various regional sales managers.

● **RI's view of tomorrow.** What about the future of TOFC on RI? Ownley sticks with a forecast made earlier this year—that there is "still a tremendous potential . . . and no reason to believe that the railroad industry will not solve its present problems in the near future."

As a railroad officer who has seen TOFC from both the rail and the motor-carrier side, he doesn't go overboard on predicting how much of total rail business may eventually go piggyback. He doesn't see any great demand, for instance, for containerization in domestic operations. And he doesn't go along with forecasts that huge percentages of carload merchandise traffic can be or will be converted to TOFC business.

"There's a big difference," Ownley says, "between business that's susceptible to piggyback service—and business that can be handled practically and practicably in piggyback service. Look at it this way: If all the 'susceptible' business had been converted to trailer operation, it would have gone to the motor carriers years ago.

"There are always sound reasons why a shipper stays with carload operation—maybe depending on rates, volume, his loading needs and facilities and his receiver's unloading needs and facilities."

● **Growth in the suburbs.** One thing that could bring a sharp new increase in the piggyback growth rate, he adds, would be industry's broad-based movement away from the congestion of the cities to the relative decongestion of the suburbs. Then, there would be an intensified competition between rail and truck, with piggyback offering the best opportunity for railroads—based primarily upon service factors.

And what's the outlook generally? Ownley puts it this way: Once railroads can make progress toward solving problems of cost and profitability, they can continue "the strong and concerted effort to recapture a substantial amount of the tonnage lost to motor carriers years ago—as well as to obtain a good share of the traffic available from the many industries which today have no railroad siding but are located with highway access only."

TOFC/COFC in the 70s

Missouri Pacific has great hopes

A kissing cousin to the various piggyback plans in use within the transportation industry is now being introduced to container users and potential users around the world by Missouri Pacific.

Called Containerpak, this new series of plans can, in the words of the MoPac, "do the same for containerization that the various piggyback plans have been able to do for trailer-on-flat-car service."

Like the piggyback plans, Containerpak is, essentially, a communications tool. It categorizes the different ways in which containers can be shipped by rail, and then explains in easy-to-understand terms how each plan can be used. At the same time, it outlines the user's responsibility and explains the rate structure. Shippers who may have been shying away from containerization because they did not fully comprehend the relatively new shipping method, can now consult the Containerpak program and learn quickly what's available.

● **Three plans, plus . . .** The program consists of three basic plans, plus a fourth which allows the shipper to use features of the three basic plans to tailor his own container-usage program. Here, in brief, is how each plan works:

—Containerpak I. This is the flat-car-all-the-way plan. At shipside or container yard, for instance, the container is loaded by crane aboard the car and moves by rail to the shipper's siding. Throughout the entire loading or unloading process, the container remains aboard the flat car. In effect, the container and flat car combine to perform in much the same manner as, say, a box car, until the time comes for the crane to remove the "box" and load it back aboard the ship.

—Containerpak II. On rubber at both ends is the way this plan works. The container may be delivered to a rail yard on a wheeled chassis, removed from the chassis and then loaded aboard the flat car. At the destination, it is placed aboard another chassis and delivered on rubber to the loading and unloading point, whichever case it might be. With this plan, the railroad performs all the crane service, putting the container aboard the car and removing it at the end of the run.

—Containerpak III. This is the wheels-all-the-way method with the chassis staying with the container at all times. In effect, the container is really a trailer and can be handled by MoPac under any of the six standard piggyback plans—Plans 1, 2, 2½, 3, 4, 5.

—Containerpak X. This is the catch-all plan which allows the other plans to be used as building blocks in establishing a customized program.

PIGGYBACK GREW BY "PLANS," each serving a specific need, and MoPac believes its Containerpak plans will produce a surge in containerization. Containerpak has three basic plans, plus another which allows for developing a customized service.

for its Containerpak concept

● **"Keep it simple."** A three-year study of all phases of worldwide containerization went into making Containerpak as simple as it is. As a result of this study, facilities were established at 11 ports within the road's own 12-state territory to ease the processing of containers moving under the Containerpak plans. Also, agreements were reached with other railroads, steamship companies and container-leasing firms to permit Containerpak service to almost every port in the nation.

The Containerpak study—made under the joint direction of MoPac's Ray A. Martin, traffic manager-containerization, and J. P. Donovan, foreign freight traffic manager—also delved into the areas of rates and responsibilities in container movements. Many of the mysteries of these two areas are removed in the Containerpak explanations.

● **Facilities ready.** Even at the time the study that led to Containerpak began, MoPac was in a fairly strong physical position to make such a container program work. The St. Louis-based road, which had pioneered containerization as far back as 1928 only to see interest in the concept wane and finally disappear for a while, saw the concept re-surface in the mid-'50s. At that time, the road invested in a number of container cranes at strategic points along its system.

Thus, when Containerpak was ready to be introduced this year, MoPac had 19 cranes at 16 different locations ready to serve the concept. Cranes, or similar equipment, are, of course, vital to Containerpak's Plan II and possibly to Plan X, too.

Chassis, likewise, are essential to all Containerpak plans except Plan I, where the container stays aboard the flat car during either loading or unloading. In the nation today, chassis are outnumbered by containers in intermodal service by better than four to one. It's not unusual, therefore, for an imbalance to occur at some locations. MoPac has taken steps, however, to assure a sufficient supply of chassis at key locations along the system—with a substantial supply of its own chassis at all of the 16 crane-equipped points.

Through its subsidiary, Missouri Pacific Intermodal Transport Co., MoPac is able to assure itself of having an additional—and virtually unlimited—supply of chassis on hand at St. Louis, Kansas City, Houston and New Orleans. The subsidiary, which is getting the chassis from ATC Leasing Co./Continental Transportation Systems, is actually serving as an agent for the chassis owner, and is arranging leases with other transportation companies, including some competing railroads.

"The chassis is probably the most important piece of equipment for a railroad when handling containers for customers," advises Martin. "It's to our advantage to have them available at important crane points. Containers can go all over the world. The ATC chassis also can go anywhere. But we do make sure that our own MoPac chassis remain on-line."

● **Solving a car-supply problem.** Flat cars equipped to handle containers are in short supply, too, Martin adds. The nationwide supply is reported at somewhat under 2,000 cars altogether, which helps to account for a large number of containers moving by rail on chassis. By allowing the container to remain on the chassis, the carrier can make the shipment via hitch-equipped piggyback cars, which are in stronger supply.

Like its piggyback service, which grew last year at six times the national average, MoPac's container service is increasing rapidly, too. Last year's total loading of 4,475 cars was just about triple the 1968 figure for containers. In the first half of this year, loadings were slightly ahead of the similar period of 1969, despite the fact that a couple of exceptionally heavy container movements were handled during first-half '69.

Now that Containerpak is on the scene, MoPac traffic experts are expecting even greater response among shippers to that basic concept which the road first introduced to domestic shippers over 40 years ago.

The customers size up piggyback's

Three-fourths of the TOFC/COFC users polled by Railway Age forecast growth. But storm signals are flying. The shippers' big worry: Rising rail rates which make motor carriage look more attractive.

C. A. Moultis, traffic manager, U. S. Pipe & Foundry Co., Birmingham, Ala., is a big user of piggyback. "Cast iron pipe is probably the biggest single commodity shipped TOFC from Birmingham and perhaps in all of Alabama," notes Moultis. "The potential for growth is substantial."

But Moultis is worried. "Initially, carriers were most aggressive in providing rates to recapture traffic lost to motor carriers," he says. "But for sometime growth has stagnated and possibly lessened, due to failure of the carriers to recognize the effect of the last several Ex Parte increases. Most carriers seem reticent to disturb box-car movements. But they should know this: Anything that can go by truck is eventually going that way, particularly traffic such as pipe that always requires trucking from the railhead."

Robert A. Propf, director of transportation and distribution for George A. Hormel & Co., Austin, Minn., has also been a big piggyback customer in the past. But a combination of factors leads him to cast a "no" vote on the question of further piggyback growth so far as his own company is concerned.

Says Propf: "For the past several years, we have experienced steady growth in the handling of our perishable products by TOFC, but during the past year and a half this service deteriorated to the point that we could not rely on obtaining a sufficient number of trailers for regularly scheduled loading, claims due to railroading negligence skyrocketed, and transit schedules became so erratic this traffic had to be diverted to motor carrier.

"And now," adds Propf, "TOFC pricing experts seem determined to establish rates substantially higher than motor carrier rates and obviously we're not going to pay a premium for an inferior service. While I certainly can't speak for other meat processing companies, I think it's safe to say that our experience is typical of the industry, and that many hundred trailerloads of meat and meat products formerly moved in TOFC service are now each week transported by truck."

OCTOBER TRAFFIC POLL

1. If you are now using TOFC/COFC in any form, do you forecast expansion of your TOFC/COFC volume?
   - Yes 57
   - No 18

2. Will this expansion come through normal growth of your business, or from conversion to TOFC/COFC of traffic now moving by other means, or through both?
   - Normal growth 15
   - Conversion 10
   - Both 38

3. If TOFC/COFC expansion will come from conversion of traffic, will it be conversion from:
   - Common or contract carrier truck? . . 41
   - Private trucking? 6
   - Rail carload? 26

4. Which of the present TOFC/COFC "plans" is best suited to your needs now and in the future? (Number of mentions.)
   - Plan II 30
   - Plan II¾ 5
   - Plan II½ 41
   - Plan III 7
   - Plan IV 10
   - Plan V 6

5. If you are not now using TOFC/COFC, but could, or if you foresee in an increase in the percentage of your traffic moving TOFC/COFC, what will be needed to attract your business? (See text.)

● **No time for complacency.** U.S. Iron & Foundry's Moultis and Hormel's Propf are two of the 75 industrial traffic managers who participated in Railway Age's October Traffic Poll on the broad question of the future of TOFC/COFC service. Moultis is among the majority (57) who plan to expand their use of this service. Propf is among the disillusioned minority who see no such expansion.

The conclusion to be drawn from an examination of the completed questionnaires is that piggyback remains a favorite with most shippers; despite its imperfections, it continues to be the best of the alternatives, and when business starts to climb out of its present slump, piggyback loadings will climb.

But the replies of nearly all shippers to Question No. 5—"What will be needed to attract your business?"—suggest that there is no room for complacency.

● **"Yes, if—".** Those who forecast growth for TOFC/COFC are nonetheless concerned over pricing trends, and to a lesser extent over service.

future

These shippers will expand their use of piggyback. . .

Admiral Corp.
American Cyanamid
American Home Foods
Bristol-Myers Co.
Cabot Corp.
Caterpillar Tractor
Chemetron Corp.
Coca-Cola USA
Combustion Engineering
Congoleum Industries
Continental Rubber
Crown Zellerbach
Detrex Chemical
Diamond Fruit Growers
Gerber Products Co.
Goodyear Tire & Rubber
Heublein, Inc.
Hiram Walker & Sons
Honeywell, Inc.
Interstate Brands
Johns-Manville
S.C. Johnson & Son
Kaiser Aluminum & Chemical
Kimberly-Clark
Kraft Foods
S.S. Kresge Co.
Lever Bros.
Lincoln Electric
Morton Co.
National Biscuit
Outboard Marine
Pacific Lumber
River Cement Co.
Sears, Roebuck
A.O. Smith Corp.
Stearns & Foster
Union Carbide
U.S. Gypsum Co.
U.S. Pipe & Foundry
Westavco
Westinghouse Electric
F.W. Woolworth Co.

. . .but these shippers foresee no growth

Armco Steel Corp.
Armstrong Chemcon.
Georgia Pacific Corp.
Graybar Electric
George A. Hormel & Co.
Lamb-Weston Inc.
Lavino Division IMC
Pillsbury Co.
Riviana Foods, Inc.
Smith Bros.
Union Tank Car
Wilson Certified Food

Note: Charts include a representative sampling, based on geography and commodity, of shippers participating in the October Traffic Poll.

Some sample comments:

"Restore the rate levels that attracted TOFC/COFC freight away from motor carriers."—L. B. Harmon, director of traffic, Kaiser Aluminum & Chemical Corp., Oakland, Calif.

"Relate rates to the cost of operation and not to motor carrier rate structures."—James D. Mitchell, traffic manager, Coca-Cola USA, Atlanta, Ga.

"If the railroads have a cost advantage over highway, they should use it to get business. They should not price themselves out of business."—C. W. Standard, director of traffic, Westinghouse Electric, Pittsburgh.

"If rails will price this traffic based on its cost and avoid percentage increases, they should find it simple to compete with motor common carriers, at least for long hauls."—George W. Albertson, general traffic manager, F. W. Woolworth Co., New York.

"Ex Parte 265 and 267 increases diverted some of our cargo to private carriage."—J. A. Illes, director of transportation, Outboard Marine Corp.

"We need more realistic rate-making geared to the cost of the operation and not merely copying the motor carrier rates."—Harry Menaker, general distribution manager, American Home Foods, New York.

"The impact of Ex Parte 267 increases will determine, in some cases, the percentage of conversion of traffic to TOFC."—H. A. Warren, manager of transportation, Lever Bros., New York.

"Service is the primary asset of TOFC. Prompt handling at both ramps will tend to increase its use. The availability of equipment hindered our use of TOFC during the first part of the year."—C. F. Rowe, general traffic manager, S. S. Kresge Co., Detroit.

"We need consistent schedules and railroad-controlled truck service from non-ramp origins and destinations to ramps."—Robert J. Tyler, corporate traffic coordinator, Chemetron Corp., Louisville, Ky.

Among others listing service as a key element in the growth picture: A. J. Wallner, director of traffic, Johns-Manville Corp., New York; Charles A. Hoppe, general traffic manager, S. C. Johnson & Son., Inc., Racine, Wis.; R. L. Mayer, manager of traffic, Vulcan Materials Co., Chemical Division, Wichita, Kans.; J. D. Robins, director of traffic, Caterpillar Tractor Co., Peoria, Ill.; C. M. Hayes, general traffic manager, Morton Co., Troy, N. Y.; R. P. Clinton, traffic manager, Honeywell, Inc., Minneapolis; Paul P. Foley, general traffic manager, Cabot Corp., Boston.

● **"No, because—."** The same general themes run through the replies of those who see no expanded use of TOFC/COFC. For example:

"During 1969 and early 1970, we tried to ship via piggyback wherever possible. Nearly 80% of this business involved flatbed trailers and we were satisfied with both service and equipment availability. Now due to recent railroad rate increases, we are rerouting this material via trucks, except for one vendor who ships to us in vans. We liked utilizing piggyback—however, it is rapidly becoming economically unfeasible."—G. F. Stunkard, traffic manager, Union Tank Car's Manufacturing Division, East Chicago, Ill.

"Railroads need dependability and flexibility, neither of which is 'real' today, to convert highway tonnage to TOFC."—D. J. Osbjornson, director of physical distribution, Lamb-Weston, Inc,. Portland, Ore.

"Present class rates under TOFC are prohibitive. Railroads appear to be afraid of diverting box-car traffic to TOFC. We use quite a lot of box cars, in fact most of our tonnage moves that way. But more and more customers want truck shipments, so we are using trucks. The only way the railroads can get this business is with competitive TOFC rates."—L. C. Philips, traffic manager, Riviana Foods, Inc., Houston.

"Piggyback must be competitive with trucks. In general rail rate increases, piggyback rates must be excepted if the increase results in non-competitive rates."—R. E. Alexander, vice president, Pillsbury Co., Minneapolis.

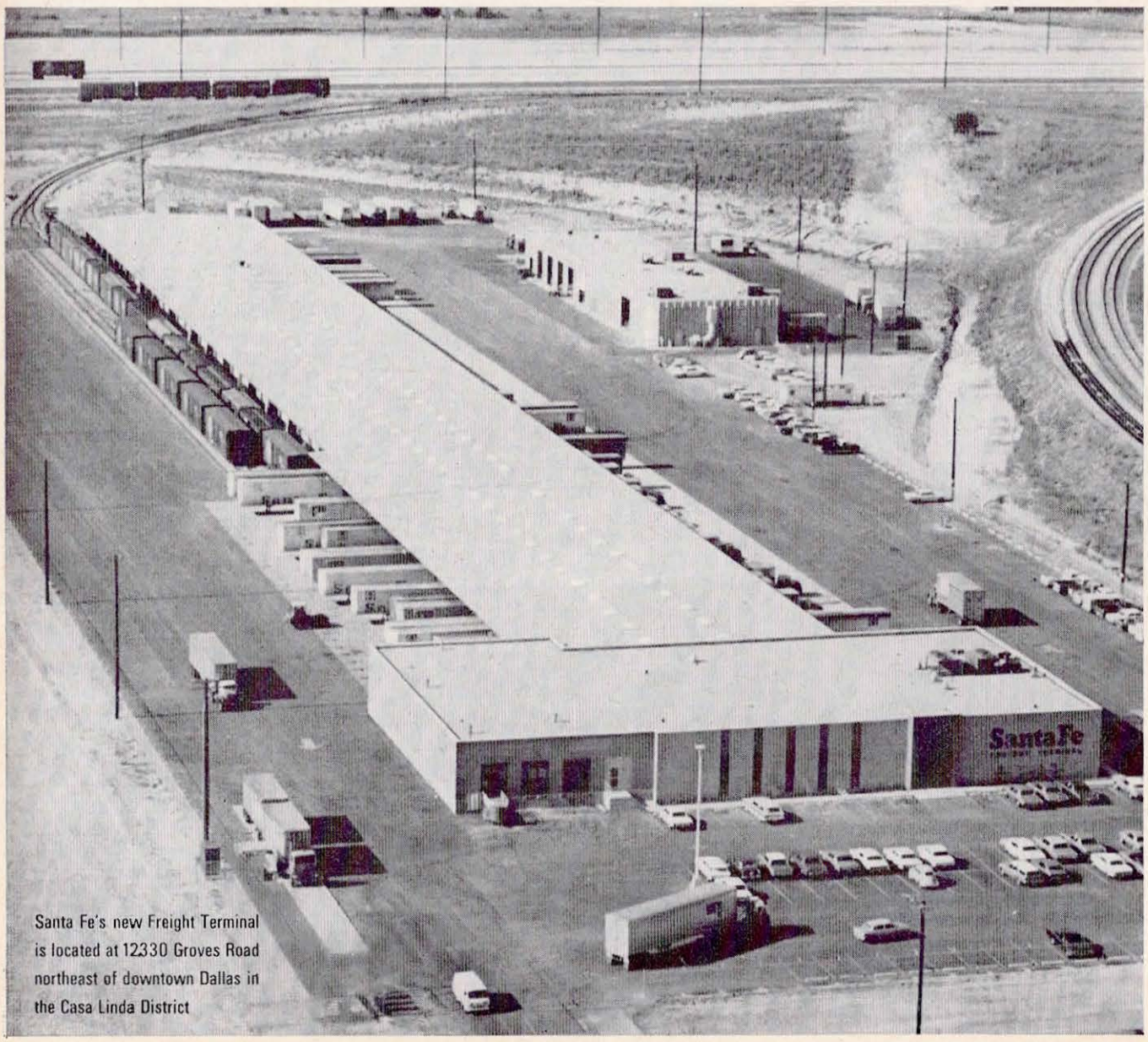
● **"Yes and no."** J. C. McKeefery, manager of TOFC for E. I. du Pont de Nemours, Wilmington, Del., was one of several Poll respondents who gave a "yes and no" answer on growth prospects. One determining factor will be rates, says McKeefery, who also calls for elimination of the 60/40 mixing rule and a simplification of TOFC rules generally.

Another "yes and no" reply came from Phillip T. Catalano, traffic and distribution manager, Steelcase, Inc., Grand Rapids, Mich. He would like to see a change in the carriers' position on damage-in-transit: "The fact that railroads disclaim liability on Plan II½ shipments has seriously affected our growth in using TOFC service."

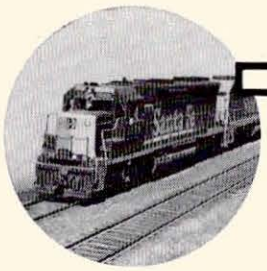
● **And "maybe."** Combustion Engineering, Inc., Windsor, Conn.. is now in the process of deciding whether to shift additional traffic. Says J. Robert Morton, vice president—corporate transportation (who sees some expansion of piggyback use in any event): "We are currently making in-depth studies in several of our divisions. All of these divisions being studied are using private trucking. We feel that a large percentage of this private operation can be returned to rail movement via piggyback. . . .

"To obtain this potential business, the rails must demonstrate their ability to provide regular on-time service—all the time." ■

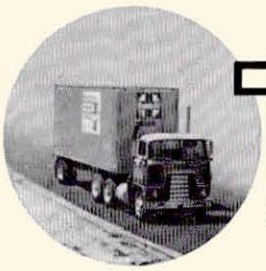
Santa Fe's new multimillion dollar terminal for Big D is a "triple T" operation...



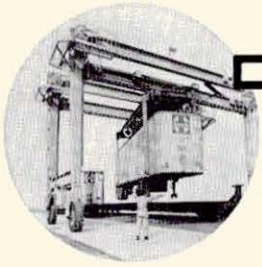
Santa Fe's new Freight Terminal is located at 12330 Groves Road northeast of downtown Dallas in the Casa Linda District



Trains



Trucks



Trailers

Efficient transportation depends on the development of better ideas and new systems of operation. This modern terminal recently completed in the Casa Linda District of Dallas is an example of the more effective ways Santa Fe moves freight by train, by truck, and through a combination of both using Piggy-Back trailers and containers.

The entire terminal covers 89 acres with a giant freight house of 100,000 square feet the center of operation. This building is longer than three football fields and is equipped with the latest type of devices to quickly handle a great variety of shipments.

The terminal office is headquarters for a skillful staff who supervise all operations and coordinate flow of traffic. It is directly linked by microwave and telephone communications to all parts of the Santa Fe system.

Fast freight trains for Dallas arrive and depart on the Santa Fe mainline adjoining the terminal thereby providing quick dispatch for rail shipments.

For the Santa Fe Trail Transportation truck system the new Dallas terminal is an important point for over-the-highway operations as well as coordinated rail-truck service.

A special 46-acre section has been developed for Piggy-Back and container equipment. Here we have installed a fast moving Travelift which lifts a trailer or container to or from a rail flat car in about two minutes.

The volume and variety of freight handled at Dallas spotlights this new terminal as an important transportation center for Texas and the southwest. It is another of the major improvements Santa Fe is making along its progressive transportation system; like the new multimillion dollar automated freight classification yard completed this year at Kansas City. Also the new mobile Simulator to better train enginemen, as well as the expansion of data systems with modern computers and a rapid microwave communication network to provide more efficient operations.

All of this, and more, is how we keep always on the move toward better ways to provide transportation by rail, by truck, Piggy-Back, container and pipeline.

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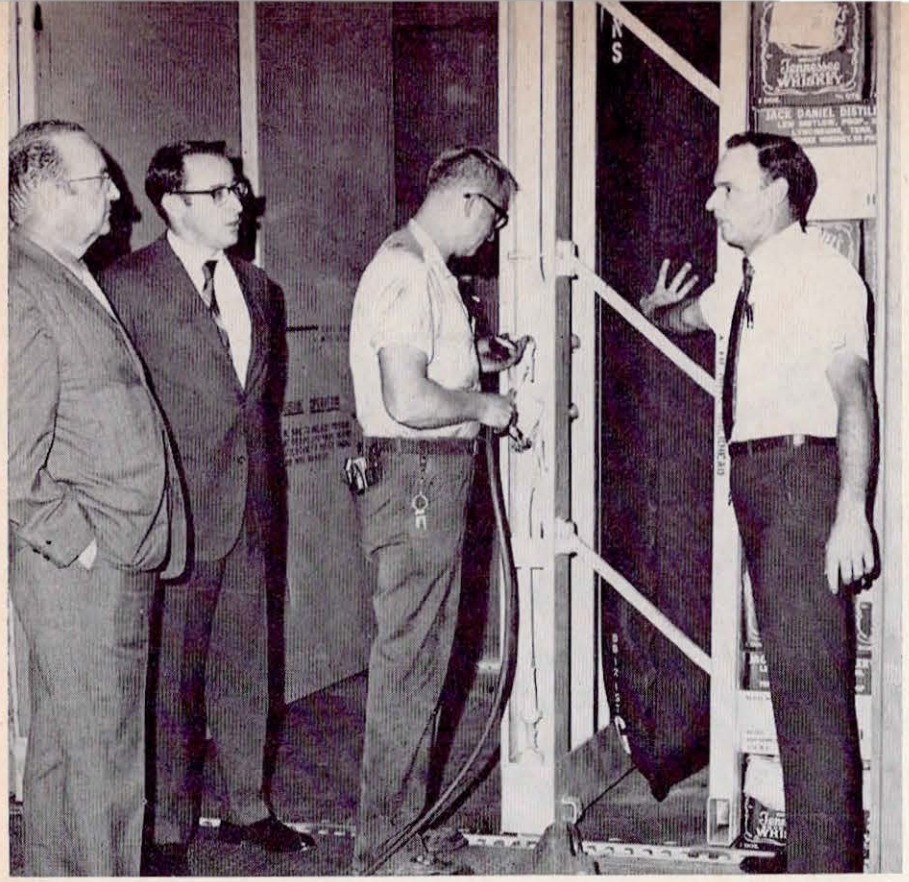
Circle 49 on Coupon Page 95



DELICATE CARGO—On the basis of experience, this car will arrive with every bottle of Jack Daniel's intact. Looking on as Air Pak bulkhead unit is positioned are Wayne S. Franklin (left), Brown-Forman's director of traffic; Bob Rickert, director-bottling and shipping; and Ed Schmidt (right), assistant supervisor-shipping.

New equipment aims to cut L&D on liquor

Much progress has been made toward the goal of damage-free shipment of whiskey by rail—and success seems not far away.

Railroads last year managed to spend more than $2.1 million in a cause that only the WCTU could appreciate. At various times, at various places and in various ways, railroads incurred that much expense in payout for loss-and-damage claims on whiskey which was spilled, stolen or otherwise rendered unpotable.

By itself, this payout wasn't so much —just about 1% of the total L&D payout of $210 million. But in relation to the total loss-and-damage picture, those cases of battered booze loomed somewhat larger: Over-all, L&D payout in 1969 went up 15% from 1968 levels—but the dollar drain on whiskey rose by more than 37%.

A lot of this payout, almost $500,000, could be attributed to two causes—theft and train accident. But more than $1.4 million was laid to "improper handling"—the catch-all under which about three-fifths of all L&D is lumped. And it is in this area where railroads this year are trying especially hard to give the shipper, the consumer and themselves a better deal—not only through the expected emphasis on careful car-handling but also through use of improved equipment.

● **Better cars coming.** Over the years, as distillers will agree, railroads have done a commendable job in their efforts to give shippers a more damage-free environment for their product. But, as the mounting L&D bill indicates, there is room for plenty of improvement—and fleets of cars going into service, now from Penn Central and American Refrigerator Transit, may represent that plenty-improvement.

Actually, there is relatively little that's brand new in these new liquor cars. The key, in today's popular phrase, is "bringing it all together"—bringing together the integral car-cushioning unit and the Air Pak load-securement device, and simultaneously providing improved loading/unloading capability. Two of the Penn Central cars will also be equipped with special trucks, with rubber used to minimize metal-to-metal contact in the truck assembly.

In tests last year, PC says, a car equipped with the Evans Products' dual Air Pak turned in a perfect record: "The car carried 1.3 million bottles of liquor on Penn Central and other roads —without breaking a single bottle."

Penn Central is putting 55 of the liquor cars into service this year—with the final car in the run scheduled to come off the production line at Samuel Rea Shops at Hollidaysburg earlier in October. Plans are being progressed for building 202 such cars next year.

L&D prevention on liquor shipments is particularly significant from Penn Central's standpoint. PC says it carries "twice as much liquor as the rest of the eastern railroads combined," with revenues of about $6 million a year. Claims, however, totaled about $400,000 (including beer) in 1968—or approximately 7% of revenues earned on liquor and beer. (By contrast, the ratio of claim payout to gross freight revenues on all commodities on all railroads was 1.76% in 1968 and 1.92% last year.)

On the outside, the liquor cars don't look that much different from a standard 50-foot box car. They are equipped with 20-inch-travel cushion underframes and sliding doors—but they are higher than "standard," and the door opening provides 11½-foot vertical clearance to facilitate forklift loading/unloading of two-tier palletized shipments. Special trucks on two of the cars were developed in England and are under license to General Steel Industries. Under test, PC says, the truck "has demonstrated an ability to significantly reduce lateral and vertical motion and reduce maintenance costs."

In the 1969-70 test series, PC says, "We have yet to break a bottle." Can this sort of performance continue? Edward G. Kreyling, Jr., PC vice president-sales and marketing thinks it can: "We have every reason to believe," he says, "that the liquor fleet will be able to deliver shipments damage-free."

● **Perfect record.** What do shippers think of the car? Wayne S. Franklin is director of traffic for Brown-Forman Distillers Corp., of Louisville. He puts it this way: "This, in our opinion, is the car that is really doing the job. We've tested the car, along with a number of other companies, and up to this time, we just haven't had any damage in cars moving with the Air Paks in them."

Like most industries, the distillers have seen quite a bit of change in methods of shipping their product. Em-

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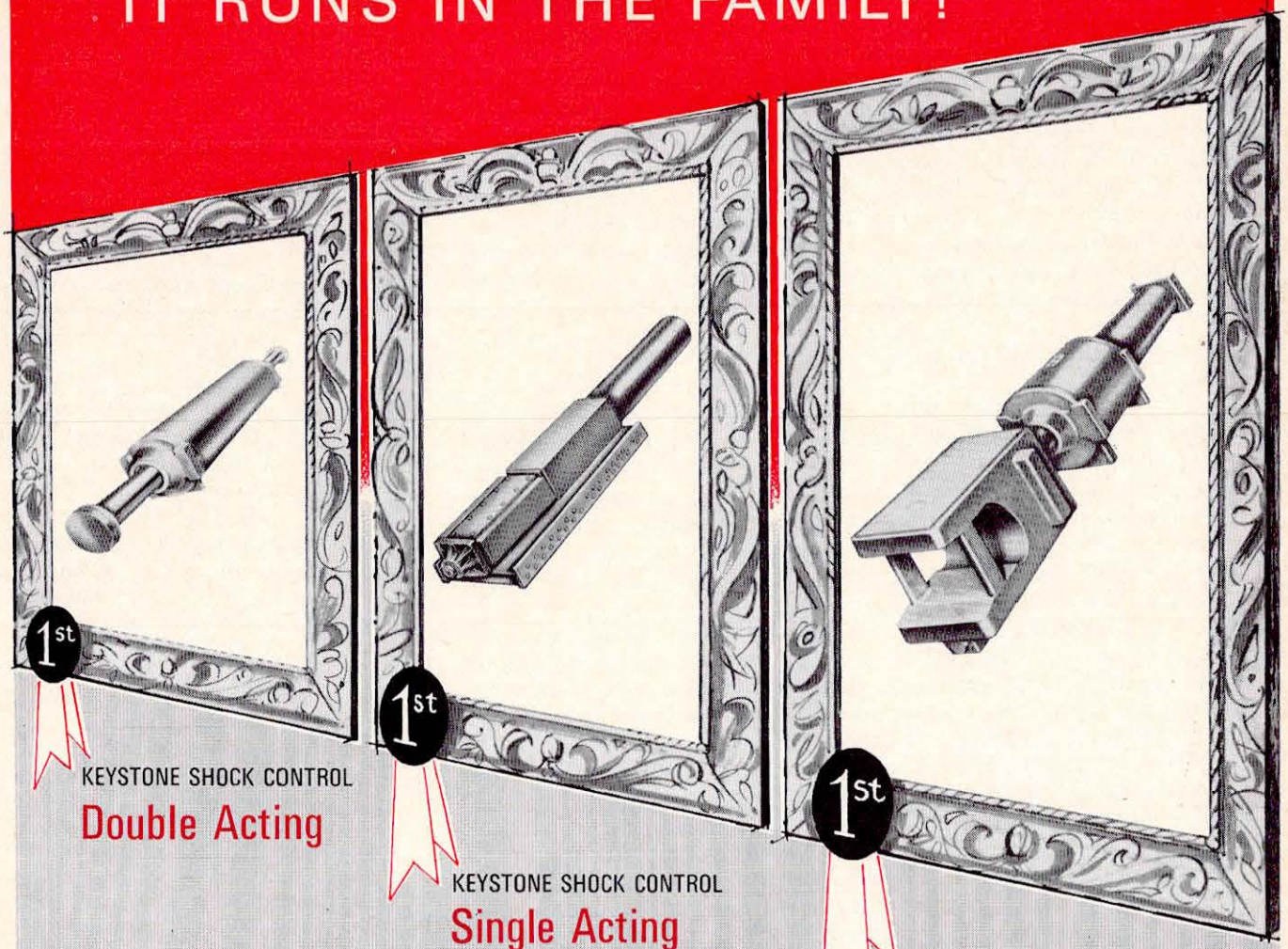

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Watching Washington

REID BEDDOW

THE WORST OF TIMES?

Any student of the past can cite example after example to prove that our times like all times are the worst of times, and the best of times. This aphorism applies to industries, just as it does to nations; and rail men might remember it when assessing the legislative record of the 91st Congress which has just recessed to fight the elections and which will return afterwards for the first lame-duck Congressional session in 20 years. For whatever this Congress didn't do for rails, it did pass a bill that creates a National Railroad Passenger Corporation; it approved important safety legislation; and its members, most of whom will be back next Congress, have begun thinking as never before about solutions to rail problems. In this sense, the rail industry has had a very successful legislative year. The big exception was, of course, the loan-guarantee bill.

THE BILL THAT FAILED

The legislation rails most ardently wanted this year was a measure that would have provided up to $750 million in Federal loan guarantees to financially-ailing railroads. After some colorful public hearings, this bill, born in emergency, met an inglorious and quiet end behind closed committee room doors. Despite Administration backing and the critical nature of rail finances, it was never too likely that this bill would have reached the statute books this year.

Administration support really was only lukewarm, and dictated more by fear of a liquidity panic than a per se desire to help rails. The argument that Republicans were loathe to press for a bill that Democrats in an election year could label a "big business bailout" is beside the point.

Fact is, senior U.S. Treasury officials have become very lukewarm in general about all loan guarantees and instead favor direct Federal loans, a new development which obviously has important implications for rails. Further, the Administration, as Congress is well aware, has financial problems of its own. Even at the time of the loan guarantee bill's introduction in June, the Administration was nervously contemplating what it now admits will be a $13-15 billion budget deficit this fiscal year (in February, Administration officials were hopeful of a $1.3 billion surplus). It is the Treasury's new approach to the mechanism of Federally-assisted credit that is of main interest here.

A little-noticed speech on Oct. 6 by Assistant Secretary of the Treasury for Economic Policy Murray L. Weidenbaum told the tale. Direct Federal loans may be preferable to Federally-assisted credit programs, suggested Weidenbaum, because such credit programs from the Treasury's standpoint are exempt from the discipline of the U.S. Budget and overall government policy and lead to credits exempt from basic monetary and fiscal restraints, i.e. high interest rates. He also said the Federally-guaranteed loans themselves lead to a "further reduction in credit supplies to those who, by virtue of their limited credit reputation, must rely most heavily on banks."

phasis has always been on damage-prevention devices, Franklin recalls, going back to the Compartmentizer and DF-B cars, and including more recently the use of sidewall fillers with unitized shipments.

The switch to unitized shipments and pallet-loading, however, created its own set of problems. "We had two types of inventory," Franklin notes, "including one type for truck which had to be the so-called five-high pallet—five layers high—to meet truckload weight requirements. But the cars we were using then weren't high enough that we could load two pallets high—five layers each on the standard brands of fifths and quarts that govern our requirements."

The distillers and railroads started again to develop a better car for liquor-handling, "and the first car to come along was the so-called C&O car. Chesapeake & Ohio developed a car which has done a tremendous job—a bulkhead car which we could load five-on-five."

● **Experiments continue.** Development of the new cars was an evolutionary thing. Over the years, he recalls, "We experimented with air bags—inflatable dunnage—in various forms." But conventional inflatable dunnage didn't turn out to be the answer. The bags, for one thing, had a tendency to work out of place in transit.

While experiments were continuing, Brown-Forman was experiencing a reduction in transit damage. A long time ago, shipping in more conventional equipment would result in damage that could run to 30 or 35 bottles per car. With bulkhead cars, Franklin says, "Our damage ratio is 'way down. I would say that the average now is about one bottle per car. Still, with bulkhead cars you have to use some means to tighten the load after you put it in the car—and I mean tighten it beyond what you can do with a forklift. We even developed our own air-bag system. We roll it into the car, tighten a load with it, then roll it back out and put the bulkheads in place.

"But this still left us with a need for something that would exert constant pressure on the load in transit—because your cases, in any kind of shipment, will naturally compress somewhat. The bulkhead stays where it is, but the compression creates a void and loosens the load. We wanted something to keep those pallet units perfectly tight—so that when the car arrives and they open the door those pallet units are just as they were when we shipped the car. This is what the Air Pak does."

At the same time, Franklin adds, "Don't undersell the C&O car. It's done a fine job for us. But we just think the new cars represent a 'little better mousetrap.'" ■

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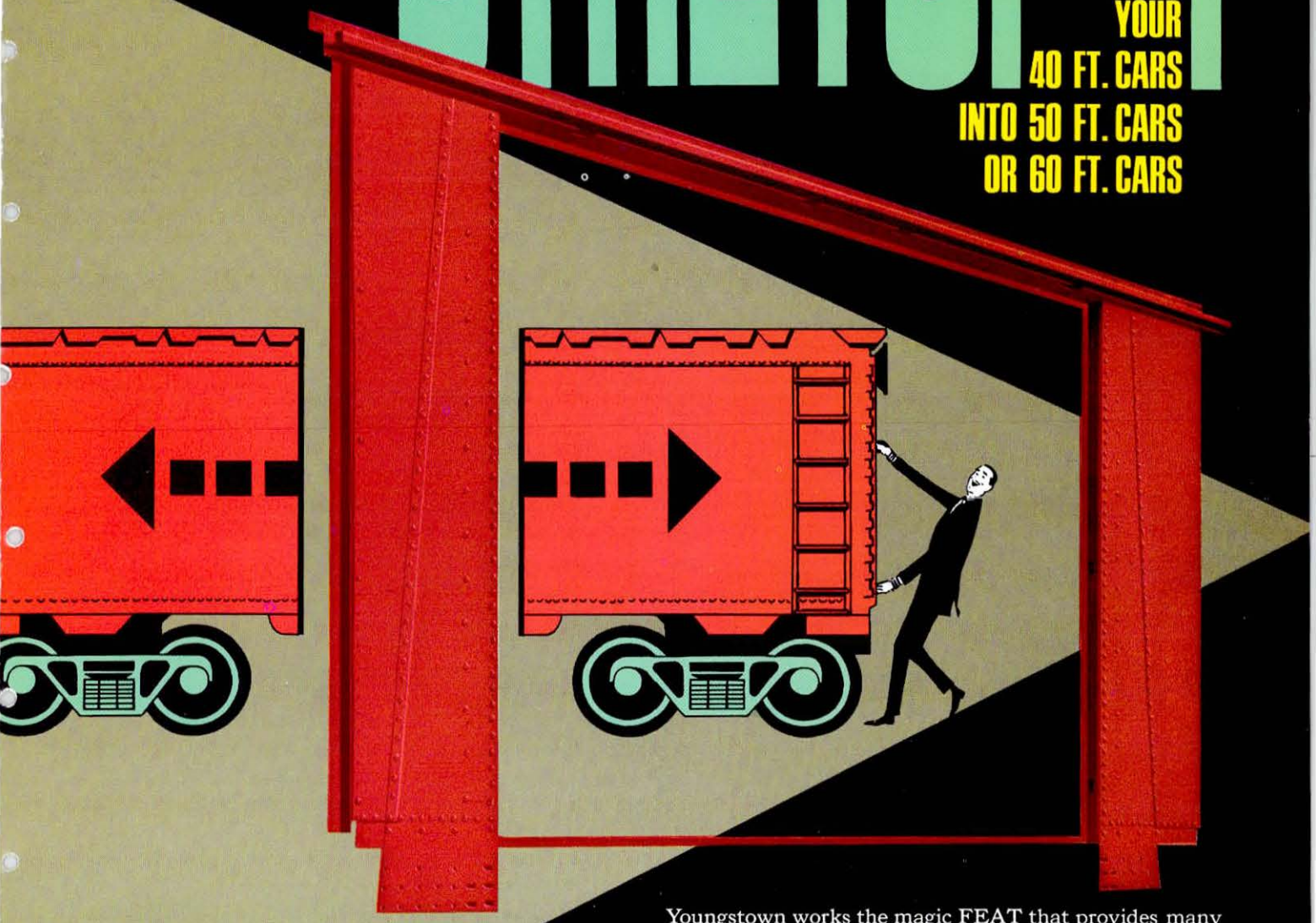

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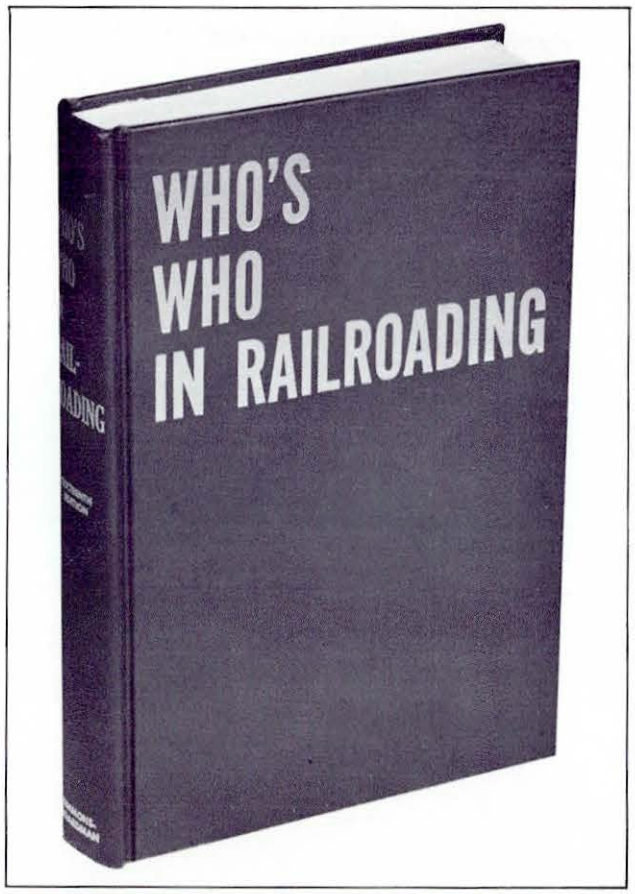

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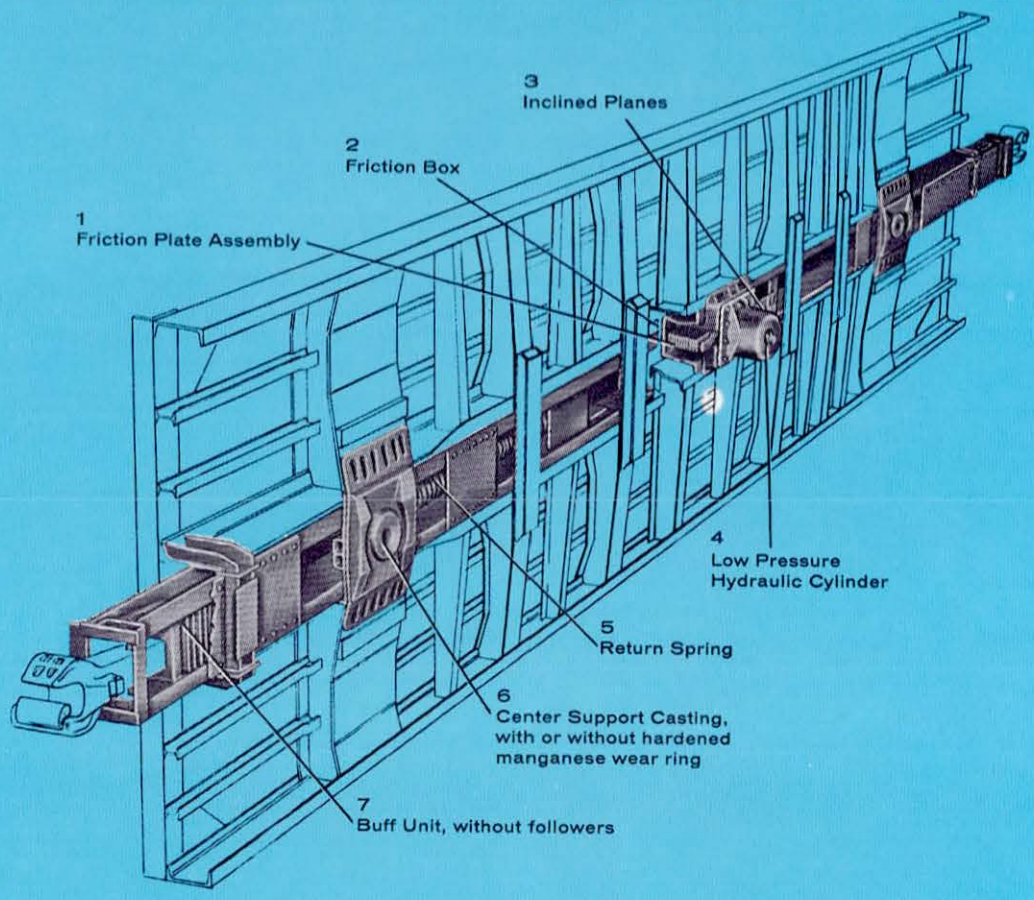

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Toward rational (and fewer) rates

The Transportation Data Coordinating Committee—representing shippers, railroads, motor carriers, water carriers, freight forwarders and investors—was created "to develop, foster and maintain an active program for the coordination and standardization of transportation data processing, commodity descriptions and codes, tariff formats, systems design and related areas." What achievement of this goal will mean to shippers and carriers was explored by Illinois Central President Alan S. Boyd at a TDCC seminar in Washington Oct. 13, as follows:

Universal codes covering the basic data used in transportation will hasten coordination, speed technological modernization, and improve the capacity and quality of transportation available to the public. . . .

At Illinois Central, we are starting up a profit/loss calculator that should become a powerful aid to those who price railroad service. The calculator should become more potent as TDCC codes achieve universal acceptance. In time, it will improve our ability to quote good, competitive and compensatory rates for anyone, anywhere, wanting to move anything, whenever, by any route.

The TDCC codes will help simplify that important work. Universally "readable" data to express the demand curves of major commodities would help us create a useful computerized interface between customers' wants and carriers' wants. Perhaps, by then, we might have come to grips with the work of the ages, and established the origin, line haul, interchange and terminating economics of every carrier, every route, every kind of equipment and time expense that could possibly be incurred by our transportation system. With such numbers matrixed into the cost-curves of major groups of commodities, questions addressed to a computer in the universal language envisioned by TDCC's codes could ultimately lead us toward rate-making capability now almost unthinkable.

Now, I don't want anyone to believe I'm so simple minded as to imagine that costs determine pricing decisions in transportation. Nor do I want anyone to think that I'm trying to do George Stafford and our other good friends at the Interstate Commerce Commission out of their jobs. Quite the contrary, maintaining the integrity —and perhaps the basic intelligence— behind such computerized analysis of rate levels, would be even more demanding than the Commission's present work. But, it might be much more rewarding to our dedicated public servants than the presently cumbersome and inexact constraints imposed by public policy and murky precedents.

Stop and think of what such capability could mean to carriers, shippers and public. Think of what it could mean to the regulatory process and to the ultimate policy decisions that are always in-the-making for private and public investment in transportation.

What are some of the obvious implications?

For one thing, with such capability at our fingertips, we would quickly reduce the entire rate structure to a shambles—unless we attack our problem in all its important dimensions. We do not need *more* rates. We need *rational* rates . . . and a lot *fewer* rates. I have been told the rate structure consists of more than a trillion rates; it just has to be obvious that billions of rates are never used.

"Tariff Circular 20 should be dragged into the space age"

IC President Alan S. Boyd

A question that cries for an answer before TDCC gets too far down the road after universal codes is obvious: How do tariffs get written?

[Here] is the Interstate Commerce Commission Tariff Circular 20, as published in 1928 and revised in 1956.

It is the Bible of the man interested in building a tariff. Tariff Circular 20 was once a couple of hundred pages of good advice, and still is a couple of hundred pages of the only advice available, to people who create tariffs. It was written, of course, before computers were ever heard of.

Listen to this: This is a quote from the section in the Circular that describes the manner in which you make an index:

"An alphabetical index of all points from which rates apply, and a separate alphabetical index of all points to which rates apply, together with the names of the states or territories in which located, except that when the rates apply in both directions between all or substantially all of the stations, the points of origin and destination may be shown in one index—provided such index or indexes must contain the item numbers in which rates from or to such points appear, except that when station numbers are arranged in numerical order or when stations are alphabetically arranged in commodity items, and such commodity items are referred to in the commodity index described by Section (C) of this rule, item numbers and page numbers may be omitted from the index of points—further provided that when item numbers are not used the index or indexes must contain the index numbers of the points and the pages on which rates from or to such points will be found, except that when the index numbers are arranged in the rate tables in numerical order the page numbers may be omitted from the index. However, if there be not more than twelve points of origin or twelve points of destination, the name of each, if practicable, may be shown in alphabetical order on the title page of the tariff and the index of such points of origin or destination, as the case may be, may be omitted."

What do you imagine that will do to your universal codes? If TDCC wants to have codes relevant to the computer opportunities ahead, Tariff Circular 20 should be dragged into the space age by a group with an eye for tariff compatibility with computer storage and retrieval.

Tariff Circular is for people who need to know how to write a tariff, and the Circular should be geared to produce a tariff that anybody can understand. Above all, it should be compatible with the codes being created by TDCC. If such revision is done well, computerized creation of tariffs would

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CP Rail

Circle 28 on coupon page 95

become possible—as standardized codes for all input data needed to construct tariffs (origins, destinations, commodities, weights, units, etc.) become available.

Rather than risk drowning in an attempt to surround the historical trillion-or-so rates that already exist—perhaps the ICC, the DOT, the NIT League and a grateful nation could simply ask the railroads to simplify the task of rate rationalization by simply maintaining a record of all tariffs actually used to move freight for the three years. Whatever tariff items were actually used could become the railroad tariffs—and all other tariffs could be abolished.

This would not be a rational rate structure—but it *would* enable us to get a fix on what the rate structure is, and perhaps give us an idea of what it ought to be.

Once we know that, the top comes right off the expectations one can legitimately have of the price list. Ultimately, a dynamic, responsive rate system can help rationally allocate capacity and investment, creatively distribute capacity by raising rates for capacity in heavy demand and lowering rates for capacity in plentiful supply, and immensely simplify regulation and aid the policy-makers who now simply grope for insight with no guides save that of lobbies, the interests that make themselves heard, and precedent.

A shipper may query a computer for the cost of moving a specific commodity in a specific manner

Think of the implications. Ultimately, when shipper Alpha wants to move a shipment of commodity Beta from C to D, in a specific kind of equipment and in a specific time period, he may be able to query a regional computer for his *cost* of doing so. The computer might reply with a charge constructed specifically for that commodity moving from C to D under exactly the capacity and time conditions specified by the shipper. Depending upon the sophistication of the programming, he might also get charges for using alternate sets of capacity and time specifications—giving him a range of choices from which to decide.

Some not-so-obvious implications?

Think of what a dynamic, constantly adjusted rate system could mean to the regulatory process. As a data pool of current, constantly updated data being "fixed" by profit/loss calculators sweeping the system to change numbers so that they reflect current cost levels, general rate increases could become a thing of the past. Shippers could, in fact, be getting charges for their transportation service as sensitive to economic trends as their own price lists—and perhaps even more so.

Public and private investment decisions for transport capacity might not be as difficult then as they have been in years gone by. Shipper and public preference, as it showed in response to such computerized choices, would provide very visible evidences of utilization. Investment placement could become very accurate.

There would tend to be less waste and duplication in capacity, and there would be strong incentives for technological progress in directions reflecting clearly visible demands from the public. There would be little argument about disinvestment—when patronage for services declined past a certain point. Also, superficially "irrational" choices being made by shippers would probably signal technological and organizational opportunity in-the-making for railroads with entrepreneurial instincts. Patronage failures, when incurred with accurate, up-to-the-minute, market-fitted prices—would be a clear signal of obsolescence or technological retardation. Short term, such a condition would be a red alert to management. Longer-term, it would serve as clear warning in investment decisions.

There are other subtleties in such space-age pricing capability for tomorrow's railroads.

Imagine the consequences from such capability if railroads can achieve demand-based charges. Such charges are common for barge capacity. The price of barge space is high during periods of top demand, and low when there is little demand. Railroads could use such capability to spread demand away from peaks in demand, and you might see an equilibrium built between available transport capacity and storage facilites at both origin and destination points. Such equilibrium would reflect optimum allocation of resources in the economy.

Imagine the possibilities for refining national transportation policy. The need for rate regulation would, of course, begin to fade as such rational, up-to-date charges were more and more in use. The case for all promotion and regulation activity would, increasingly, be based upon accurate knowledge as to how such moves would affect traffic flows and the shippers, receivers and modes concerned by such change. It would, with such awesome evidence at our fingertips, make it difficult and, possibly, impossible, for powerful lobbies, however well-financed, to succeed in stamping out even primitive common sense in national transportation decisions. Logic, the public interest, and our increasing concern with both environment and the economic spending of national resources—could, with such capability, become the benchmarks for transportation decisions, high and low, in the 'seventies.

Such systematic codification of the transportation industry's essential data as the TDCC task forces have undertaken, is the key to all that, with, of course, proper attention given to drastic modernization of Tariff Circular 20, so computerization can proceed.

The railroad industry, through an inflow of young and talented marketing people, and through an increasing capability built up over the past decade as the railroads computerized, is beginning to get a grip on some of its cost problems. Mergers are helping.

The need for regulation will diminish as pricing becomes computerized and rationalized

There are fewer and fewer factors that need to be reckoned with.

The regulatory authorities, I am glad to say, are more and more alive to and sympathetic with the problems that get built into such anachronistic relationships as we have between one mode and another. Everyone recognizes the gap that is widening between our need for intermodality and our practical ability to solve the technological, economic and regulatory problems that have to be resolved before any kind of satisfactory fit can be hoped for. Yet, everyone does not recognize that the time is late, indeed, for the sort of salvation we've gotten in time past from the battle of the lobbies, the power of rhetoric and the influence of strategic interests.

Thus, you can see that the TDCC is engaged in work of the utmost importance for those who want to use computers to simplify transportation data. The potential savings to shippers, carriers and, ultimately, the public, are enormous. The improvements in service quality are equally great. All of us need to support the TDCC's pioneering efforts. ■

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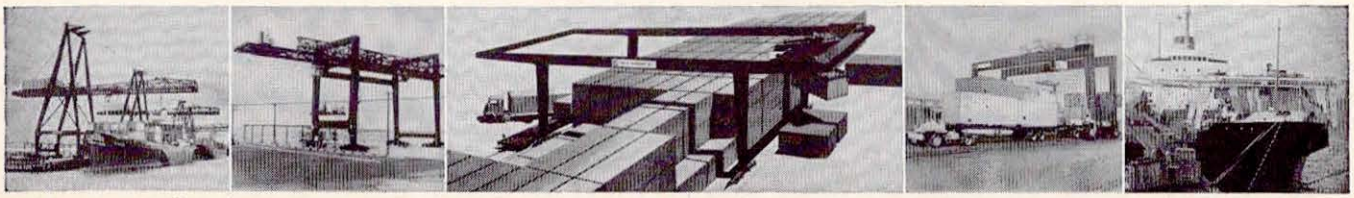

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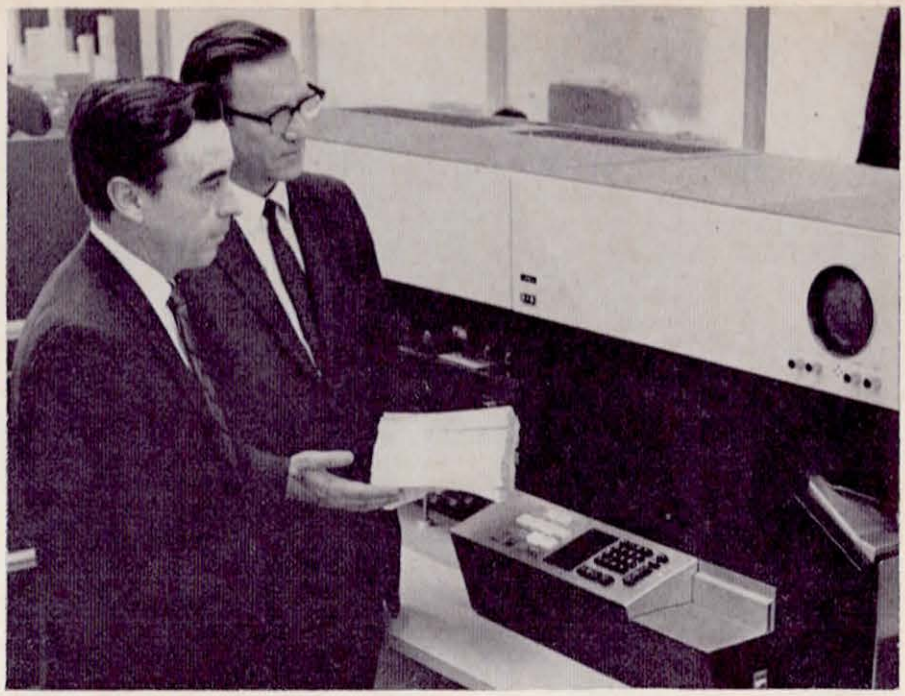
Circle 29 on coupon page 95

NEWLY-DESIGNED FORM used by Long Island conductor combines three previously seperate sets of tickets into one.



TICKET COUPONS ARE "READ" through this IBM 1287 Optical Character Reader, which is part of an IBM System/360 Model 40 installation. Here, author William H. Dietz demonstrates for W. D. Mitchell, Jr., how tickets are fed into the machine.

LIRR scanner "reads" conductor's punch

Huge manual accounting workload has been converted to an efficient machine system, with a number of ancillary benefits.

By WILLIAM H. DIETZ*

An innovation on the Long Island Railroad permits conductors on commuter trains to provide input to our computer by merely punching cash fare tickets. This system has given us a wealth of new information on 8% of our business.

The new method of accounting for cash fares sold on-trains was made possible through the use of an optical scanner that can "read" punched holes as well as hand-printed and preprinted information. The punched tickets provide extensive data on 140 LIRR stations that previously was difficult or impossible to collect.

● **Streamlined data collection.** As we handle the data processing requirements for the nation's largest commuter railroad—carrying 260,000 passengers a day—the optical scanner has given us significant help in streamlining data collection for a sizable segment of the railroad's revenues. We have established tight controls over tickets issued, while easing the conductor's job. We have already converted a major portion of a huge manual accounting workload to an efficient machine system. Most important, we now have the capability to develop the traffic data needed for intelligent planning and evaluation of station operations—information which was not available in the past because of the costly clerical effort required to produce it.

To my knowledge, this is the first time an optical scanner has been applied to cash fare sales, an integral part of commuter operations. Unless the railroad is adapted to subway-type service, a significant percentage of tickets will always be sold on the train. So long as the quantity is small, it's easily managed, but as commuter traffic expands the problem grows with it.

As might be expected, it has become acute on the Long Island, with a complex system including 340 miles of route, ten lines, and 151 passenger stations. Of the LIRR's 7,000 employees, about 1,000 are conductor/collectors who generate more than 500,000 cash sales aboard our trains every month.

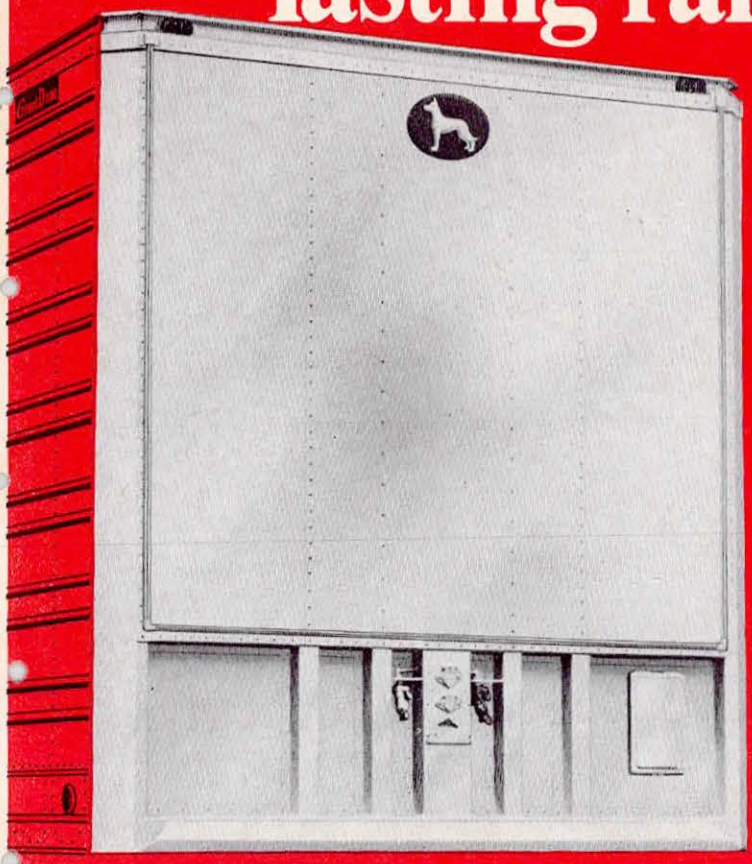
● **Manual work imprecise, costly.** This heavy volume previously was processed manually. Aside from the obvious high cost of manual data processing, accounting could not be as precise as W. D. Mitchell, Jr., Manager of Passenger Revenue Accounting, desired. A mechanized system instituted in 1961 established effective control of printed ticket sales at each station, but it was considered impossible to mechanize on-train sales.

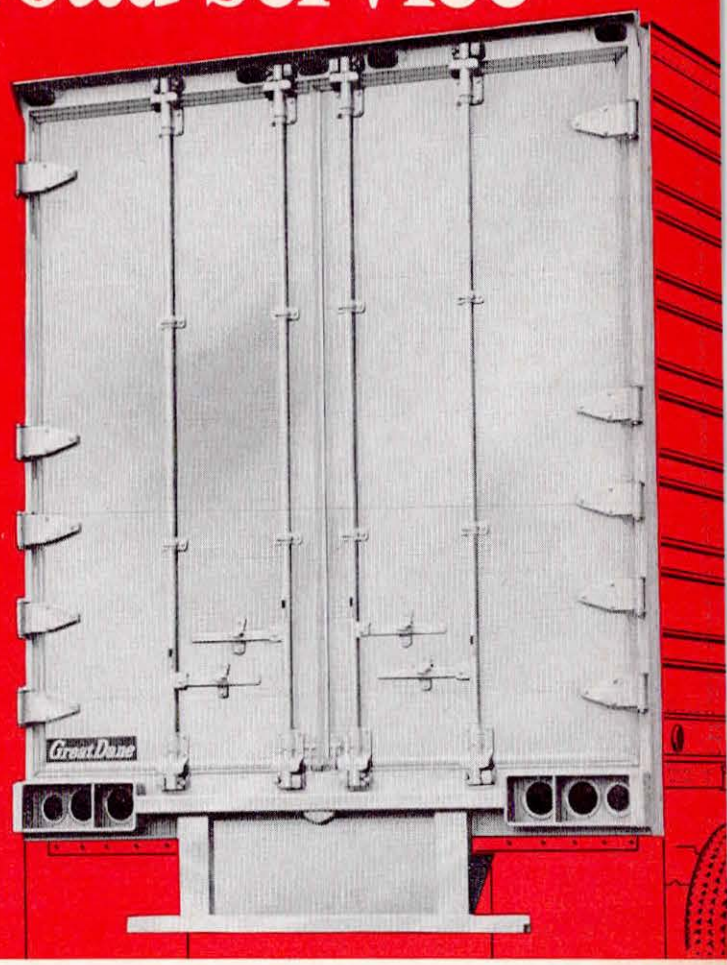
Yet, these ticket sales reflect marketing data essential to our long-range planning. Very few stations have sufficient traffic to justify keeping the ticket booth open at all times. The key questions are which station booths now closed during the day or evening should be opened and for how long? Accurate and timely on-train sales data is helping provide this information.

A number of methods were investigated, including the optical scanner. However, the scanner is designed to "read" machine-printed and hand printed data; on-train tickets are validated by hand punch. This is not just a matter of tradition; the hand-punch is the most efficient tool for handling tickets on a moving train. Key data such as "from-to," type of sale, and amount collected is represented by holes punched in predetermined sections of the ticket. Conductors seldom have to

*Mr. Dietz is Director of Management Information Systems, Long Island Railroad.

Great Dane piggybacks are built tough for lasting railroad service





An extra strong and rigid rear end protects lights, doors, hinges and all door hardware. Massive bottom corner castings at the rear corners take dock shock and distribute it to the side rails.

The plymetal doors are supported by ten high strength hinges, with the lower hinges positioned where possible cargo shift damage might occur. The doors will open completely to the sides to provide a full width opening. Doors are locked into place by four heavy-duty, galvanized locks.

Up front the nose also is extra strong and rigid with a heavy gauge aluminum skin over 3″ deep steel hat section posts which are full height. Electrical connectors and glad hands are fully recessed for maximum protection.

Beveled front corners are steel. The interior lining in the nose has square corners for maximum cube and cargo area. A 20″ high steel interior bulkhead extends across the entire front to offer protection to this vital area. The strength of the front end is further increased with a 3/4″ plywood lining. The entire front end is a tough, one-piece unit.

For complete details on some of the strongest piggyback trailers made, write to Kit Hammond, Manager, Railroad Sales.

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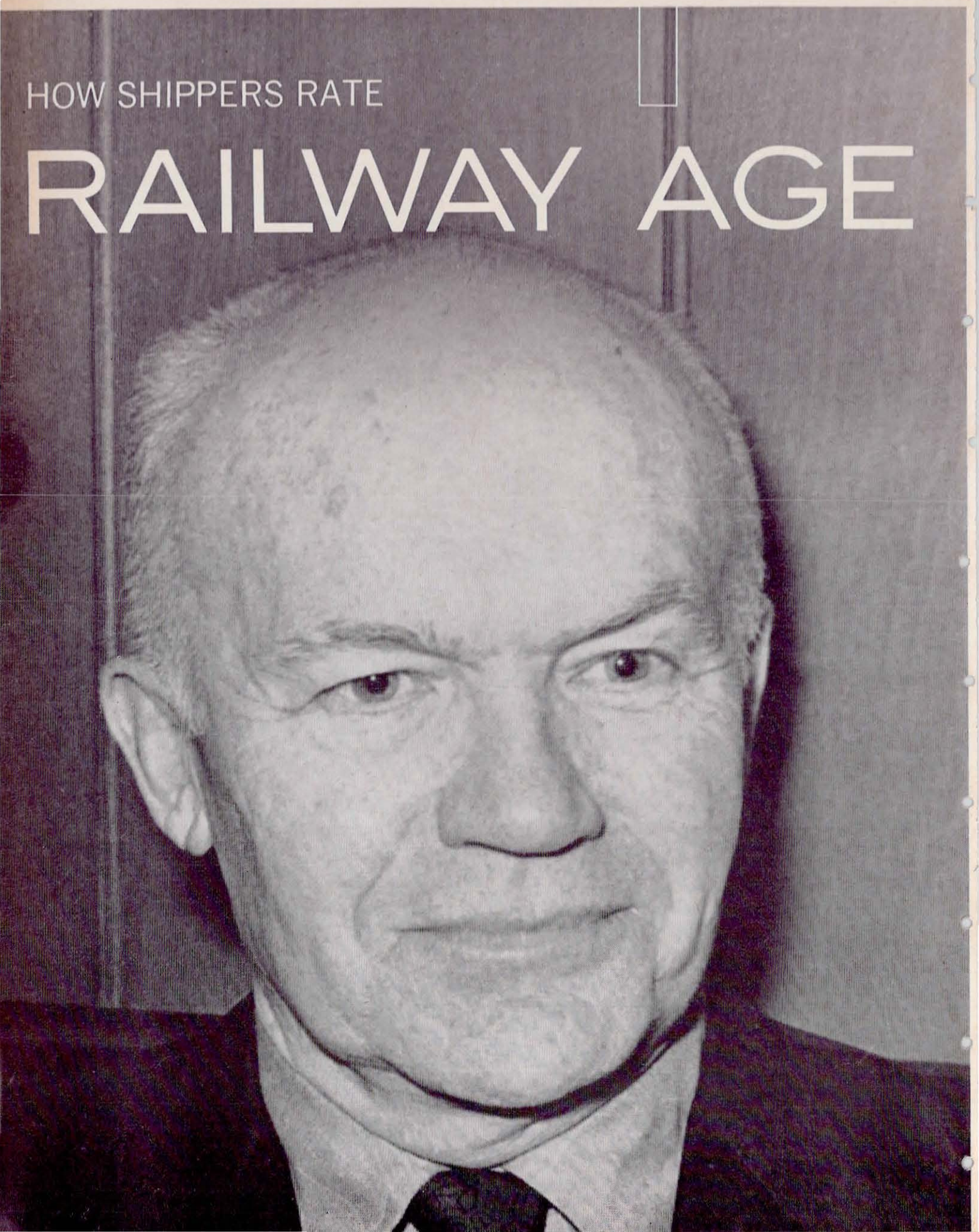

manual of case histories"

CONGOLEUM INDUSTRIES, INC.

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July 1, 1970

Mr. Robert G. Lewis
Railway Age
30 Church Street
New York, N. Y. 10007

Dear Mr. Lewis:

The Freight Traffic issues of Railway Age have been an important part of our advanced traffic education for many years. It is a newsletter, a textbook and a manual of case histories.

The writing is crisp, incisive and readable and the format is in tune with the times.

Of particular interest to our people was the series on Tomorrow's Railroads, a must for everyone interested in transportation.

In an era in which we are deluged with trade literature, it is pleasurable indeed to find a magazine which gets right to the heart of its subject and yet covers it with a thoroughness unmatched by its competitors.

I am firmly convinced that much of the progress made in the areas of equipment and service has been a direct result of the Monthly Traffic Poll.

A traffic department is not accomplishing its purpose if it is not informed to the latest possible minute. Your lively publication helps make that desired purpose a reality.

Yours very truly,

CONGOLEUM INDUSTRIES, INC.

J. J. D'Arcy

J. J. D'Arcy
General Traffic Manager

JJD:f
encls.

THE SCANNER CAN HANDLE A NUMBER OF JOBS

do any writing, and that's the way it should be.

● **Cooperative study.** It then became a question of whether the optical scanner could be made to "read" punched holes. A study in cooperation with optical scanning specialists from IBM indicated that this could be done. Computer instructions were written so that the scanner could "interpret" the hand-punched holes and derive the necessary information from them.

When we were satisfied that the new procedure would work, in September 1969, we installed an IBM 1287 Optical Character Reader. It is linked to our System/360 Model 40. The computer is equipped with magnetic tape units and 2311 magnetic disk units using interchangeable disk packs.

As a first step, we redesigned the ticket packs which are issued to conductor/collectors. Previously, there had been one pack for stations on electrified lines, a second to cover stations on diesel lines, and a third for special situations such as supplemental fares. This meant that a man who worked different runs during a single week had to carry up to six different ticket packs with him.

● **One ticket for all fares.** The new ticket combines more than 140 stations plus special situations in one pack. The remaining stations are so seldom used that when a ticket has to be issued for them, the collector writes the "from-to" information in a designated space. This change was welcomed by the men, since they can use the one ticket for all fares and need carry only one pack.

The pack contains 100 tickets. Each ticket is individually preprinted with a control number, and each book is headed by a control slip printed with a number covering all the tickets in the book.

As a conductor begins a new book, he fills in the control slip by hand printing his employee number in a designated space. He also enters an account number which has been issued to him, and which serves as a double-check in our system. If the employee number for some reason is not read or is entered in error, the system will still identify the man through his account number.

The control slip also contains instructions for the men as to how the numbers are to be hand printed, so that the machine will be able to identify them, Finally, the man validates this slip with his punch. Since no two men have the exact same punch, this serves as his signature.

The cover slips are forwarded to the Data Processing Department. They are fed into the 1287, which "reads" the pre-printed control number, each man's hand-printed identifying numbers, and places this information on magnetic tape. Later, the tape is used to update a conductor/collector master file of books issued. At all times, on disk files, we have a computer record of each ticket issued, and the man to whom it was issued.

● **Receipt for rider.** The tickets are sold as they always were, with the collector using his punch to indicate origin, destination, direction of travel, the type of ticket sold (one-day excursion, ladies' day, etc.), and the amount of fare collected. The face of the ticket is printed with the names of more than 140 stations, and includes a "target" for the collector to aim at with his punch. Since the ticket is a two-part form, a rider's receipt is created automatically. The collector keeps the second half, which is the auditor's coupon. At the end of a run, the collector deposits his coupons, along with the amount collected, at one of five ticket receiving offices. A cashier fills out a collection slip which is also an optical reading document.

Updating the master file

The data which is "read" by the 1287 and placed on magnetic tape, is used to perform a number of operations and prepare needed reports. The computer checks the amount collected for each ticket against a table of rates maintained in "memory" files. When a discrepancy is noted, it is printed out in a daily report known as an error list.

The master file containing numbers of ticket books issued to individual collectors is updated by subtracting the ticket numbers which come in as coupons. The master record is also credited with the number of tickets sold by each man, and the amount of revenue collected.

Any errors or exceptions noted by the computer program are printed out so that the conductor/collector who made the error can be notified.

● **Monthly revenue report.** A station file, containing traffic data on each station is updated with the number of tickets sold and amount of revenue collected by type of ticket. This information is used to prepare a monthly revenue report and traffic study by station. Both the station master and conductor/collector master files can be checked for up-to-the-minute status at any time.

Every day a report is prepared providing Passenger Revenue Accounting with a complete rundown on tickets processed the previous day. Every two days, a report showing activity in the conductor/collector master file is prepared. The result is an excellent overview of cash fare activities, providing precise controls and a wealth of statistics not previously available.

The 1287 operates under Disk Operating System/360, in what is known as a multiprogramming mode. This means that as documents are "read" by the machine, and information from them placed on tape, the Model 40 handles other work as well. The Long Island computer system operates six days a week—three shifts a day. Many other railroad applications are also processed electronically, such as freight accounting, budgeting and payroll.

● **New applications coming.** On-train fares accounting is the first of a number of applications we plan to put on the 1287. We will soon begin processing sick leave forms through optical scanning. At present, these forms are keypunched from basic information provided with each claim. The new system will use Selectric typewriters equipped with a font which can be read by the 1287. The claim forms will be typed within the group originating each claim and forwarded to us ready for processing, eliminating a considerable keypunch workload.

Another application under study is an accounts receivable system which will permit commuters to purchase tickets on a "revolving" basis, similar to public utilities billing. The tickets will be printed on the Model 40's high-speed printer, using an optically-read font.

Each ticket will have a stub, also with preprinted accounting data, which will be returned by the commuter along with his check. The stubs will then be fed through the 1287 for fast accounts receivable processing.

This system, which offers an excellent potential for reducing transactions at station booths and being convenient for the LIRR rider, would be impractical without the scanner. What this means is that a machine originally installed and justified on the basis of one application—on-train fares accounting—is available for additional work, and may provide the key to a system long desired by our management.

In the final analysis, efficient, economical commuter service in the future may well rest on innovations such as these. The technology for continued improvements is here; by applying it to one very big problem, we believe we have opened the way to solving others as well. ■

People in the News

BALTIMORE & OHIO.—William Richard Cunningham, customer service manager, Parkersburg, W.Va., appointed division sales manager, Cumberland, succeeding **R. S. Densmore, Jr.,** named assistant to regional sales manager, Baltimore. **William S. Dundore,** sales representative, Jacksonville, Fla., succeeds Mr. Cunningham. **Kenneth E. Mills,** division sales manager, Decatur, Ill., appointed sales manager, Baltimore, succeeding **A. Douglas Steuart,** retired.

Arthur G. Yates, Jr., assistant regional sales manager, appointed regional manager—customer service, with headquarters as before at Baltimore.

BANGOR & AROOSTOOK.—Paul E. Hayes, chief clerk, car service department, named manager-car service, Bangor, Me., succeeding **Linwood W. Littlefield,** named manager-operations and maintenance (RA, Oct. 12, p. 55).

BESSEMER & LAKE ERIE.—M. Rougas appointed assistant chief engineer, Greenville, Pa.

V. L. Harley, superintendent, Greenville, appointed superintendent-special duties. **M. R. McCormick,** trainmaster, Greenville, named superintendent. **J. W. Schnarre,** assistant to general superintendent, appointed assistant superintendent.

BOSTON & MAINE.—Donald P. Felt, manager-freight rates, Boston, promoted to assistant vice president-pricing, succeeding **Robert C. Donovan,** who retired Sept. 30. **Francis H. Willard, Jr.,** traffic analyst, succeeds Mr. Felt.

BURLINGTON NORTHERN.—Richard W. Stumbo, director, financial planning, appointed assistant vice president-financial planning.

J. J. Burns appointed director, management and cost control systems; **R. R. Savina,** assistant director, marketing and finance systems, both with headquarters in St. Paul.

R. E. Anderson named principal assistant engineer, St. Paul. **J. L. Stephens** becomes assistant to director, maintenance planning, St. Paul.

H. E. Halweg appointed director, insurance, St. Paul, succeeding **R. B. Digison,** retired.

C. W. Fish named trainmaster, St. Paul.

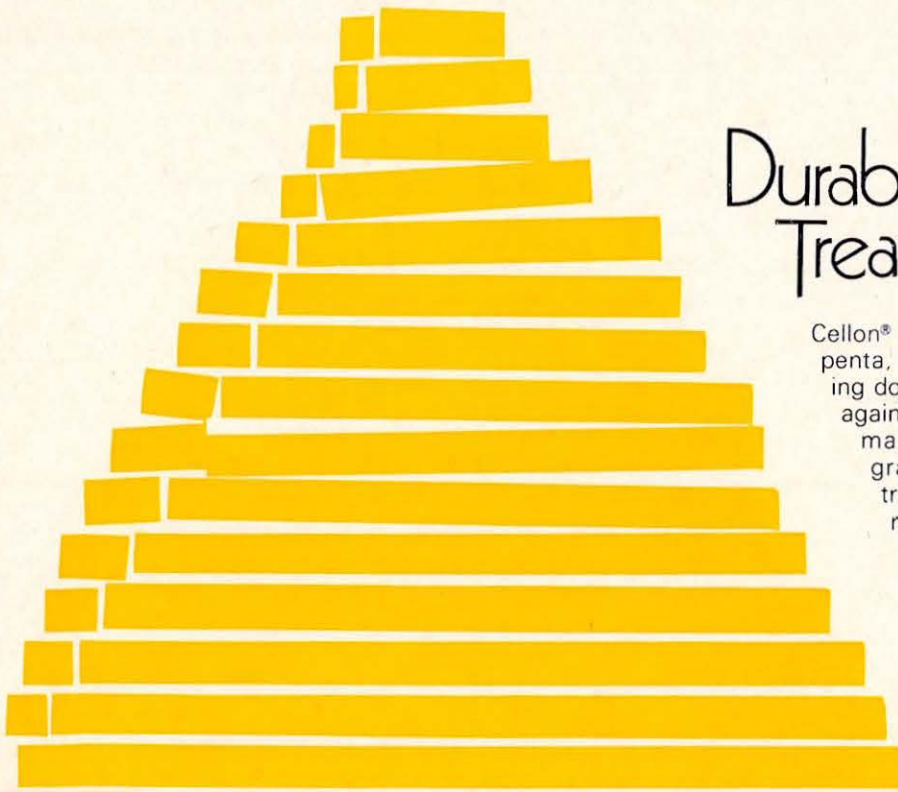
CANADIAN NATIONAL.—William J. Dewan, public relations manager, New York, appointed public relations manager, Mountain Region, Edmonton, Alta, succeeding **J. J. Thornton,** retired.

V. R. Cox, engineer of location and construction, system, named manager, Saskatchewan Area, succeeding **E. S. Barker,** who retires Oct. 31, after more than 45 years with the CN.

W. A. Prins, mechanical engineer, equipment, appointed customer research officer, Great Lakes Region, Toronto. **J. G. LeBlanc,** assistant superintendent-equipment, Newfoundland Area, appointed mechanical officer-motive power, Montreal, succeeding **R. Templeton,** named assistant works manager, Point St. Charles Shops, replacing **W. L. Draper,** promoted. **H. Blanchette,** electrical engineer, Equipment department, St. Lawrence Region, Montreal, appointed equipment engineer there, succeeding **N. J. Olsen,** appointed engineering and planning officer, replacing **W. Cameron,** transferred to the Prairie Region.

G. W. Lange, regional comptroller, special duties, Edmonton, Alta., appointed to the new position of assistant manager, Southwestern Ontario Area, London.

V. G. Johnson, engineer maintenance, Montreal Area, appointed assistant engineer maintenance of way, St. Lawrence Region, Montreal, succeeding **B. J. Ethier,** transferred to the Quebec Area. **K. J. Redman,** co-ordinator performance reporting, accounting and finance, Montreal, appointed comptroller, Southwestern Ontario Area, London, succeeding **J. G. Buchan,** promoted.



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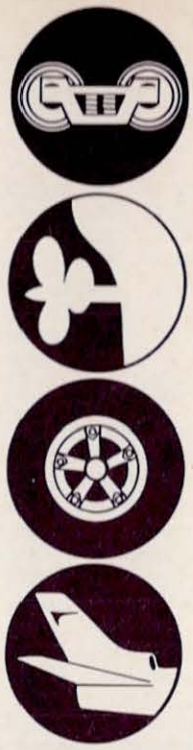

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Circle 32 on coupon page 95

W. J. S. Wade, freight claim agent, Winnipeg, named manager, merchandise claims.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—Gordon A. Volkers, assistant director corporate planning, appointed director of terminal operations for trailer service, Baltimore, succeeding **Clarence M. Wrightson,** retired after more than 45 years of service.

John Tierney, manager-service and facilities development, commercial development department, appointed assistant director of corporate planning, Baltimore.

John P. Gallagher, district sales manager, B&O, New York, appointed manager, World Commerce Department, C&O, New York. **Derek G. Marsh,** assistant district sales manager, Buffalo, N.Y., promoted to district sales manager, Pittsburgh, succeeding **Frank L. Doherty,** transferred to Chicago. **Donald G. Lemonds,** sales representative, Louisville, promoted to district sales manager, Memphis, Tenn., succeeding **James R. Honeycutt,** transferred to Grand Rapids, Mich.

CHICAGO & NORTH WESTERN.—Edward E. Harney, general sales manager-western states, transferred to the north central states, to succeed **Raymond J. Degnan,** named assistant vice president-sales (RA, Sept. 14, p.94). Mr. Harney's successor is **Thomas S. Hudson,** general sales manager—Chicago, who in turn is succeeded by **Ronald D. Balow,** regional sales manager, Denver.

CHICAGO SOUTH SHORE & SOUTH BEND.—Richard D. Bunton, chief clerk and office manager, Chicago, named general agent, South Bend, Ind., to succeed **W. Leslie Baldwin,** who retired Aug. 31 after 25 years of service.

DELAWARE & HUDSON.—Thomas F. Winnett, assistant Canadian sales manager, Montreal, promoted to Canadian sales manager, succeeding **G. Clayton Seaman,** retired after 46 years with the D&H. **Ernest J. Irwin,** Canadian sales representative, succeeds Mr. Winnett as assistant Canadian sales manager.

DULUTH, MISSABE & IRON RANGE.—Richard B. Hood, secretary, Pittsburgh, Pa., elected treasurer there. **William E. Bester** appointed treasurer, Duluth, Minn. **John E. Ralph, Jr.,** appointed assistant secretary and assistant treasurer, Pittsburgh.

ERIE LACKAWANNA.—Frederick A. Holt appointed division storekeeper, Secaucus, N.J., succeeding **Leonard Van Olden,** who retired Sept. 16, after 50 years of service. **Edward F. Keenan** appointed division storekeeper, Hoboken, N.J.

Walter R. Tennyson, general freight agent, New York, promoted to assistant freight traffic manager there, succeeding **Elliot J. McGarry,** who retired Sept. 30, after 48 years of service. **Charles W. Hammond,** assistant general freight agent, succeeds Mr. Tennyson as general freight agent. **John Stocks** appointed assistant general freight agent and **John A. Sees,** assistant to general freight agent. **Frank J. De Giorgi** appointed assistant general freight agent, Chicago, succeeding **J. Al-**

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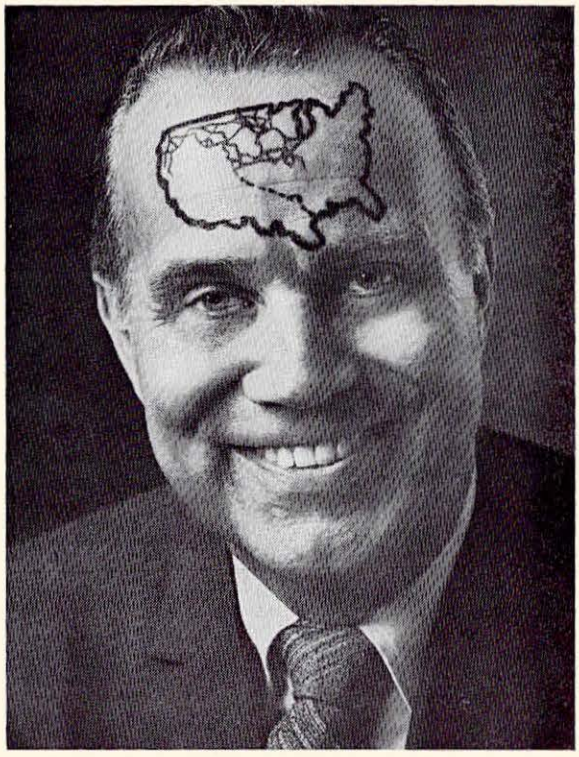

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George can show you thousands of acres of potential paydirt along the rails of Burlington Northern. In every major marketing area from mid-America to the Pacific coast.

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bert Roberts, who retired Aug. 31.

Captain Walter R. Davis, assistant superintendent of lighterage and stations, Hoboken, N.J., retired after more than 42 years of service.

FRISCO.—L. M. Allison, master mechanic, appointed division master mechanic, Eastern division, Springfield, Mo., to succeed **E. S. Wood,** who retired Aug. 31 after 45 years of service. **R. H. Stracke,** general locomotive foreman, replaces Mr. Allison.

GULF, MOBILE & OHIO.—Robert J. Puff named assistant freight traffic manager, St. Louis, to succeed **William E. Barrett,** who retired Sept. 30 after more than 52 years' service. **W. T. Burns** appointed assistant general rate manager, Mobile, Ala.

ILLINOIS TERMINAL.—Chester E. Hatfield, chief accounting officer, retired Sept. 30 after more than 44 years of service.

LOUISVILLE & NASHVILLE.—Ira L. Bell, superintendent, Western & Atlantic division, Atlanta, Ga., transferred to the Nashville division, to succeed **D. M. Wear,** who retired Aug. 31 after more than 44 years' service. Mr. Bell's successor is **C. F. Anderson,** assistant superintendent, W&A division, Atlanta.

John R. Newton, general agent, Louisville, named division sales manager. **A. J. Richards,** assistant to general freight agent, Louisville, appointed assistant general freight agent, succeeding **W. R. Myers,** retired. **Thomas H. Collins,** assistant to passenger traffic manager, Louisville, named to the newly created position of manager, mail and express traffic.

Several engineering functions have been combined under the maintenance-of-way department. **Raymond W. Pember** named assistant chief engineer, maintenance of way, and will be in charge of reorganized operations. **Charles L. Gatton** named engineer, maintenance of way, Northern Region, and **William H. Stringer,** engineer, maintenance of way, Southern Region. **Lawrence A. Logsdon** becomes engineer, track. **Lionel F. Currier** named engineer, structures. Mr. Currier will head a structures department which has been formed by personnel from the former bridge and architectural department. They include **Conrad W. Hale,** named engineer, bridge design and review; **Joseph B. Sellers,** appointed production engineer, structures; **William C. Kirkland,** named production engineer, structures; **Jack T. Johnson,** appointed general supervisor, B&B, Southern Region. **James K. Gloster** named assistant to chief engineer; **Charles T. Yarbrough,** administrative engineer, both at Louisville. **John D. Vaughn** named division engineer, Birmingham, Ala.; **W. Paul Jones,** division engineer, Western & Atlantic division, Chattanooga, Tenn., and **Rodney P. Haddon,** resident engineer, Louisville. A planning and design department in the office of the chief engineer has been formed by combining the planning and construction, and the miscellaneous departments.

Charles E. Stoecker has been named engineer, planning and design to head the new department. **James P. Bolling** appointed engineer, project administration; **Irl C. Riggin,** engineer, project design.

MILWAUKEE.—Donald M. Wiseman, general manager of freight sales, named to the newly created position of general manager of field sales, with headquarters continuing in Chicago. **John F. Dunseth, Jr.,** appointed general manager of system sales, Chicago, also a new position. Mr. Dunseth was formerly director of management and cost control systems, **Burlington Northern,** St. Paul. **Earl C. Winther,** assistant district manager of sales, Spokane, named district manager of sales there, to succeed **Dennis J. Sullivan,** retired.

MISSOURI PACIFIC.—James A. Hesse named general attorney-Missouri, succeeding **Harold L. Harvey,** retired.

NEWBURGH & SOUTH SHORE.—John L. Parker appointed general superintendent.

NEW YORK & LONG BRANCH.—Richard B. Wachenfeld elected president, succeeding **Robert W. Minor,** resigned. Mr. Wachenfeld is vice president and general counsel, **Jersey Central,** and president, **Raritan River, Central of Pennsylvania** and the Communipaw Central Land Co.

NORFOLK & WESTERN.—Raymond C. Wojahn, assistant to comptroller and assigned to the merger study task force since 1969, promoted to assistant comptroller,

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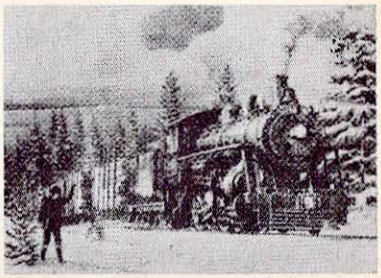

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Being oldest is one thing. Being best is something else. Tyden is both – as more than 90% of North America's railroads testify by their exclusive use of the Tyden Seal. Should you be among the few who haven't gotten the word, please write today for free samples and details. We're not too old to move fast.

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Circle 34 on coupon page 95

succeeding **Edgar G. Parker,** who retired Aug. 31, after 44 years of railroad service.

William E. Gibler, trainmaster, Fort Wayne Division, Peru, Ind., promoted to assistant superintendent, Decatur Division, Decatur, Ill. **Daniel R. Crawford,** assistant trainmaster, Chicago, promoted to trainmaster there, succeeding **Samuel D. Chandler,** who replaces Mr. Gibler at Peru. **J. J. Gillispie** named trainmaster, Chicago Terminal division, Chicago.

Clifford Maynard, trainmaster, Scioto Division, Portsmouth, Ohio, promoted to assistant superintendent terminal, Clare-Berry, Ohio, near Cincinnati. **Claude C. Springer,** trainmaster, Clinch Valley District, Carbo, Va., transferred to Portsmouth. **Richard T. McReynolds,** general yardmaster, Weller Yard, Va., promoted to trainmaster, Carbo.

John A. Gearhart, superintendent shops, Roanoke, Va., retired Aug. 31, after 47 years with the N&W. **William R. Kinsey,** master mechanic, Roanoke, promoted to superintendent shops—locomotive. **Everett H. Fariss,** master mechanic, Muncie territory, Frankfort, Ind., appointed superintendent shops—car. **Charles S. Wilkerson** assistant master mechanic, Shaffers Crossing, Roanoke, promoted to master mechanic —locomotive, Roanoke territory. **William H. Morris,** general foreman car department, Shaffers Crossing, named master mechanic —car, Roanoke territory. **Jack L. Oakey,** general foreman car department, Roanoke shops, succeeds Mr. Morris. **Paul J. Barry,** assistant master mechanic, Bluefield, W. Va.; succeeds Mr. Fariss. **Eugene H. Keith,** master mechanic—car, Decatur, Ill., appointed master mechanic—car, Bluefield territory. **David C. Foster,** master mechanic, Brewster, Ohio, succeeds Mr. Keith. **Carl F. Smith,** master mechanic, Bellevue, Ohio, transferred to Moberly, Mo., succeeding **Carl F. Krippendorf,** who replaces Mr. Foster. **Harold L. Wingfield,** mechanical supervisor—floating equipment, Detroit, appointed master mechanic, Fort Wayne territory, Detroit, succeeding **Jacquin F. Rieck,,** appointed master mechanic —locomotive, Bellevue. **Raymond W. Mott,** assistant master mechanic, Bellevue territory, appointed master mechanic—car, Bellevue territory.

Samuel D. Adsit, Jr., named president of Lambert's Point Docks, Inc., Norfolk, succeeding **F. E. Dickerson,** who retired Sept. 1. Mr. Adsit was formerly assistant to the president and secretary.

Robert J. Whitaker, assistant superintendent, Scioto Division, Portsmouth, Ohio, promoted to superintendent, Radford Division, Roanoke. **Wilford C. Stevens, Jr.,** assistant superintendent, Pittsburgh Division, Toledo, Ohio, named assistant superintendent, Radford Division. **Robert C. Churchill,** trainmaster, Detroit Terminal, succeeds Mr. Whitaker at Portsmouth.

Joseph N. Sailor, Jr., assistant superintendent, Moberly Division, Moberly, Mo., succeeds Mr. Stevens at Toledo. **Allen B. Childress,** trainmaster, Decatur, Ill., succeeds Mr. Sailor at Moberly. **Merl E. Kloth,** trainmaster, Moberly Division, succeeds Mr. Childress at Decatur. **Frank K. Turner,** assistant trainmaster, Moberly, promoted to trainmaster there.

PENN CENTRAL.—David Kelso McCon-

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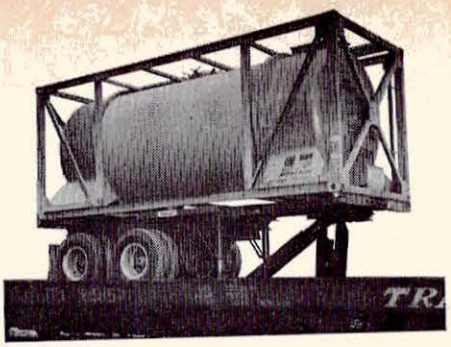
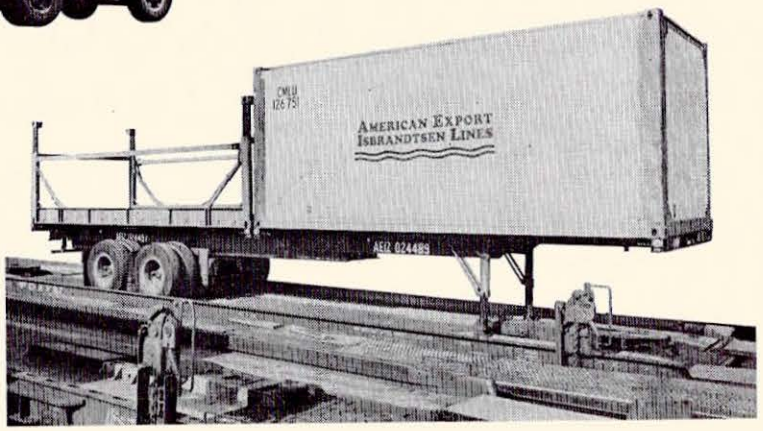
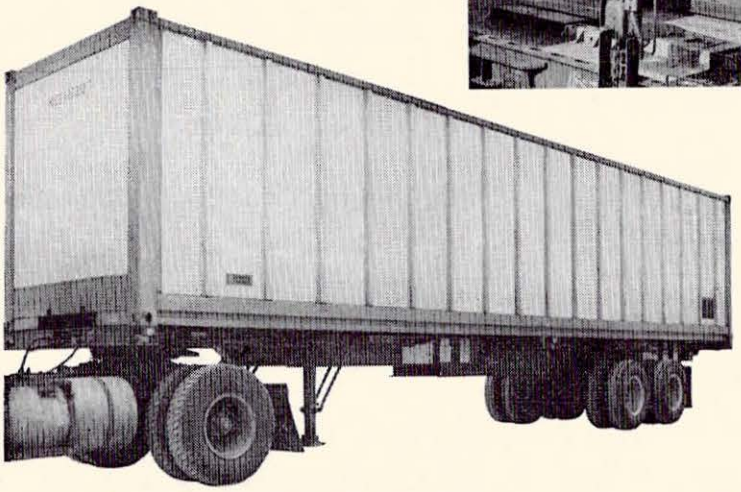


that hauls

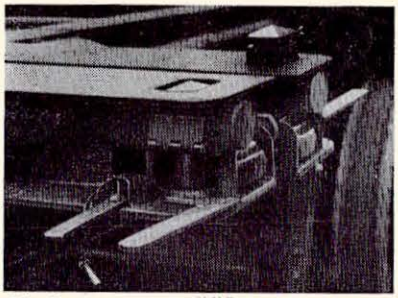
all types of 20-foot

containers





hauls 40-footers, too.



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nell, assistant general attorney, New Haven, Conn., appointed assistant general counsel, Philadelphia.

RAILWAY PROGRESS INSTITUTE.—Russell F. Griffin, administrative assistant, Washington, D.C., appointed treasurer.

READING.—Herbert E. Lukens, Jr., regional sales manager TOFC, New York, appointed director-TOFC sales, Philadelphia. **Robert D. Pysher,** sales manager, Toledo, succeeds Mr. Lukens. **Francis J. Gormley,** assistant manager—market research, appointed Eastern Regional sales manager-TOFC, Philadelphia.

Joseph M. O'Malley promoted to assistant general attorney.

SANTA FE.—Horace W. Elliott named manager-traffic, Chicago, succeeding **William F. Hartnett,** who retires Sept. 30 after nearly 45 years of service. **Michael M. Benya,** eastern sales manager, New York, appointed manager-traffic there.

C. L. Holman, district engineer, Western District, Eastern Lines, transferred to the Eastern District, with headquarters remaining in Topeka, Kans., to succeed **W. E. Axcell,** retired. **F. L. Rees** succeeds Mr. Holman.

Michael M. Benya, eastern sales manager, New York, appointed manager-traffic.

ST. LOUIS SOUTHWESTERN.—William R. Buskirk appointed western traffic manager, San Francisco, Calif. **David T. Kelley** appointed general agent, Los Angeles, succeeding **John W. Shaffer,** promoted to assistant traffic manager, Los Angeles, replacing **Jack Rector,** retired.

SOO LINE.—Paul H. Pfeiffer named manager of employment. He was formerly manager of employment and placement services, **Brown and Bigelow Corp.**

SOUTHERN PACIFIC.—B. W. Bishop, assistant superintendent, Portland, Ore., appointed assistant to general manager, Houston. **R. E. Dipprey** named assistant superintendent, Houston.

Frank E. Russell, chief mechanical officer-system, San Francisco, retired Aug. 31.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—William F. Thompson elected president, effective Nov. 1, succeeding **J. H. Sharp,** named vice president-yards and terminals, **Penn Central.** Mr. Thompson was general manager-systems, **Rock Island,** Kansas City, Mo.

TOLEDO, PEORIA & WESTERN.—R. D. Moore, assistant freight traffic manager, Peoria, Ill., appointed general traffic manager. He will assist **Ralph Hudson,** vice president-traffic, in overseeing all functions of the traffic department as well as developing its policies. **F. L. Hawkins,** assistant to vice president-traffic, appointed freight traffic manager in charge of intermodal services. **C. E. Zeman** appointed freight traffic manager in charge of equipment and service. **M. J. Faley,** assistant general freight agent, appointed assistant freight traffic manager-rates and divisions. **A. D. Gebhardt,** assistant traffic manager, promoted to traffic manager in charge of the Peoria Agency, succeeding Mr. Zeman. **C. E. Psinas,** chief clerk-traffic, appointed assistant traffic manager, Peoria Agency.

UNION PACIFIC.—Cecil L. Ferguson, chief of the freight service bureau, named general traffic agent, Des Moines, Iowa, to succeed **Wilson W. McKee,** retired.

WESTERN MARYLAND—E. G. Reese, assistant controller, Hagerstown, Md., retires Sept. 30, after 50 years of service. **R. S. Martin** appointed auditor of expenditures, Hagerstown. **E. D. Smith,** manager revenue division, named auditor of revenues, Baltimore. Abolished positions of assistant controller and manager revenue division. **W. K. Gronemann** promoted to eastern sales representative, New York. **R. M. Moscynski** appointed assistant to manager, Rail-Highway Services.

WESTERN PACIFIC.—Robert J. McKelly named district sales manager, Kansas City, Mo., to succeed **Ursul F. Bohne,** retired.

WESTERN RAILROAD TRAFFIC ASSN.—Richard E. Altgilbers named assistant chairman, Executive Committee. He was formerly manager of pricing, **Burlington Northern,** St. Paul.

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This car wrote a new chapter in the history of produce shipping. The Conditionaire can keep up to 183,000 pounds of perishables at a precise temperature, winter or summer. No crating, less spoilage, more payload. Quite a story.

acf **ACF INDUSTRIES**

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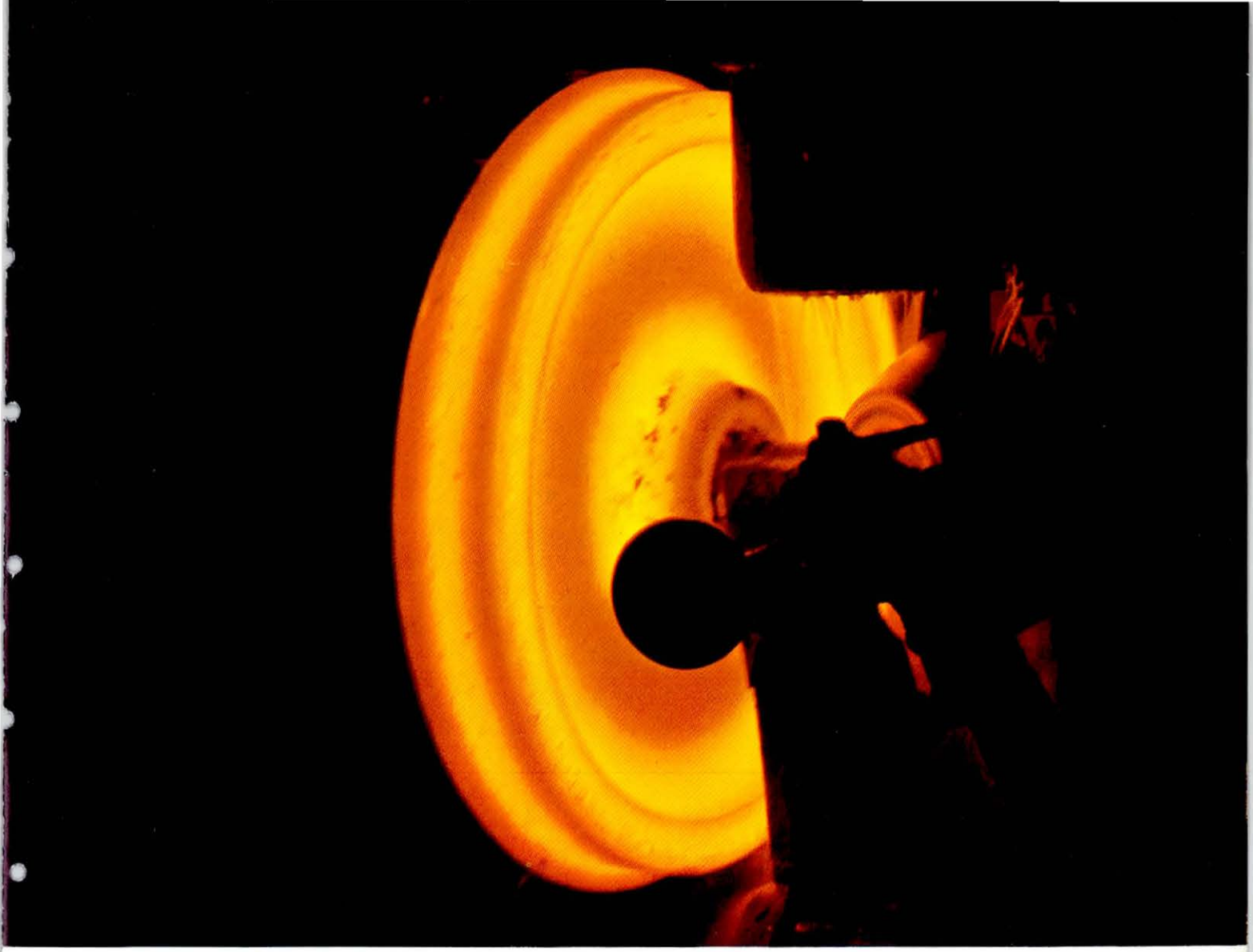

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The Compagnie des Ateliers et Forges de la Loire, better known as CAFL, is one of the major European specialty steel producers, combining a fine tradition of steel making with the most modern equipment—The Dunes plant of CAFL, located near Dunkirk and Antwerp, specializes in the production of Railway wheels and axles, sold separately or as mounted sets.

The modern facilities of the Dunes have given to CAFL a leading position in the manufacture of wheels and axles. CAFL is the main supplier of the French Railroads, also exports to all European countries and the rest of the world, furnishing mounted sets to the railways of India, Turkey and Egypt; wheels or axles for Argentina, Brazil and Mexico . . .

Forged wheels: • Size limitations: all forged and rolled wheels with a diameter ranging from 20″ to 53″, and a weight from 375 to 2200 lbs.

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If it's dry bulk, the everything car can handle it. And more of it. For details, call or write ACF Industries, Incorporated, Amcar Division, 110 Clark Street, St. Charles, Mo. 63301.

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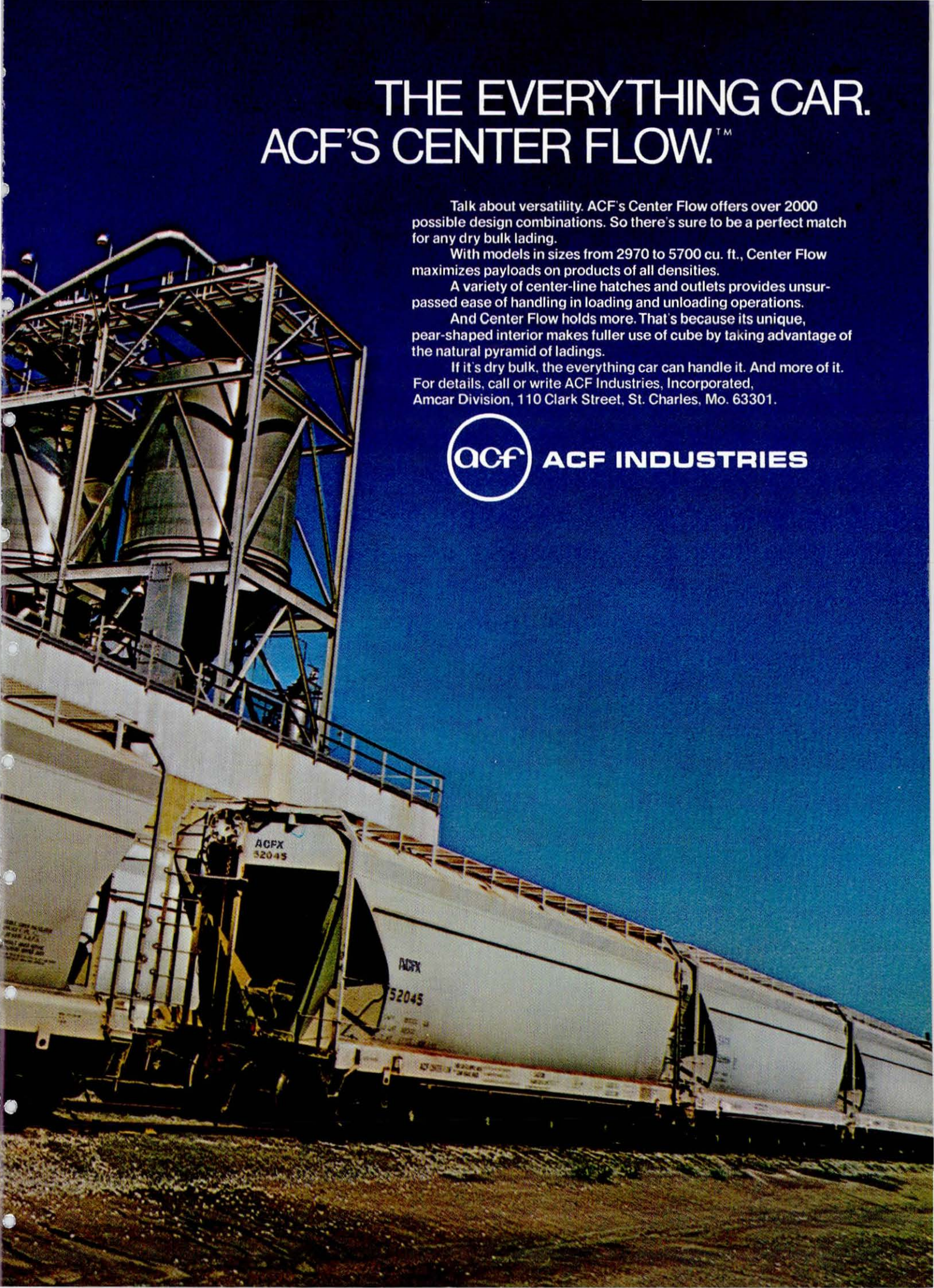

Part of our $50,000,000 bet that we can solve your shipping problems.

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This radar senses a freight car's speed in our yards. Almost instantly, a trackside brake adjusts its speed — controlled by part of the industry's most advanced computer complex.

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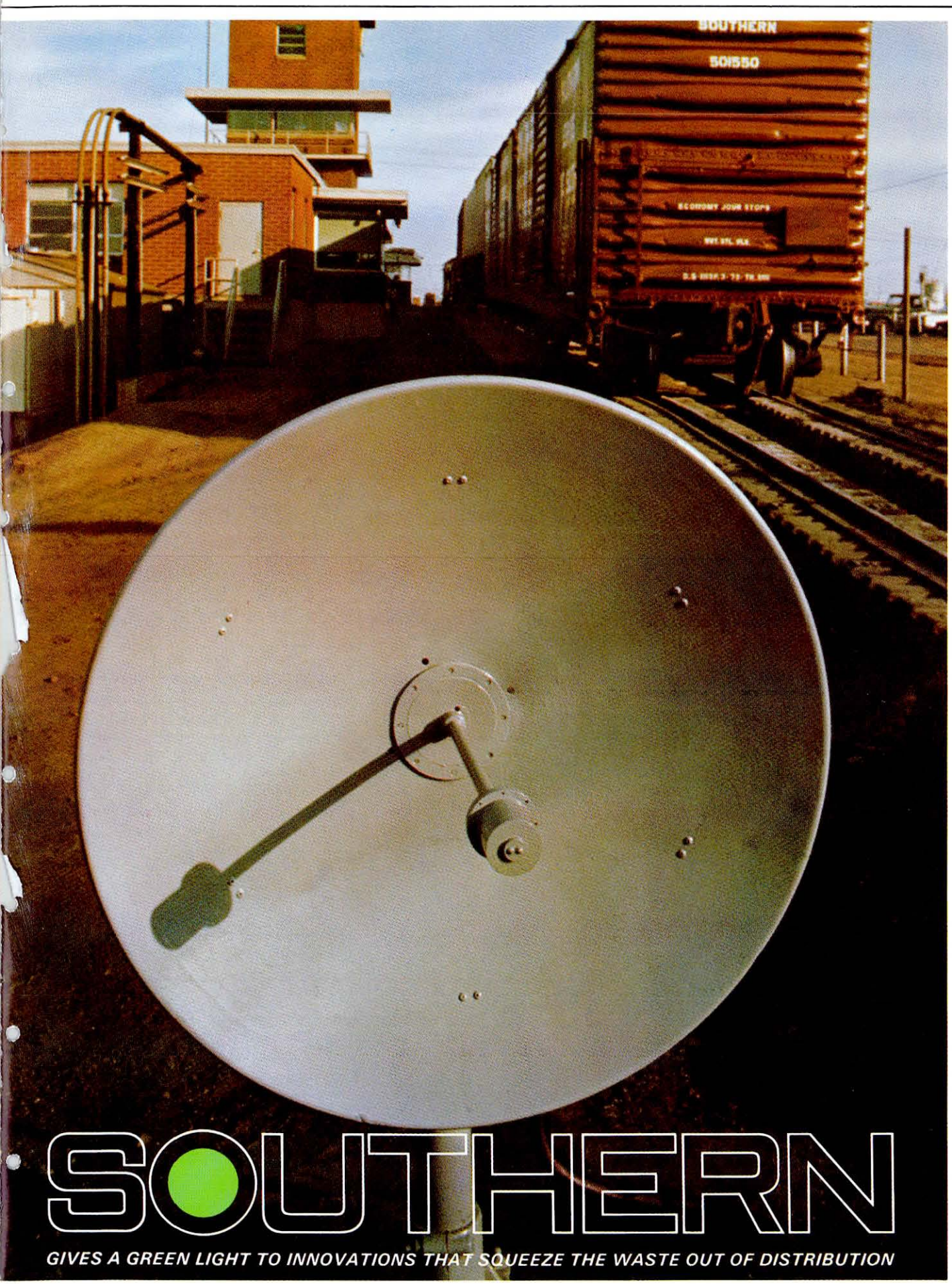

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FreightMaster is 12 years ahead.

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Serve you even better. With a new home office and manufacturing facility. With expanded research programs and increased A-I-D engineering and field service.

Our new 160,000 sq ft manufacturing, research and executive office complex is open to provide another giant step forward for the FreightMaster concept. We have forged into a new era of acceptance for FreightMaster cushioning equipment with installation of the 50,000th car set.

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We'd like to thank you for your faith in FreightMaster as expressed by the installation of 50,000 car sets. At the same time, we offer the entire FreightMaster complex as evidence of our tremendous confidence in the future of the railroad industry.

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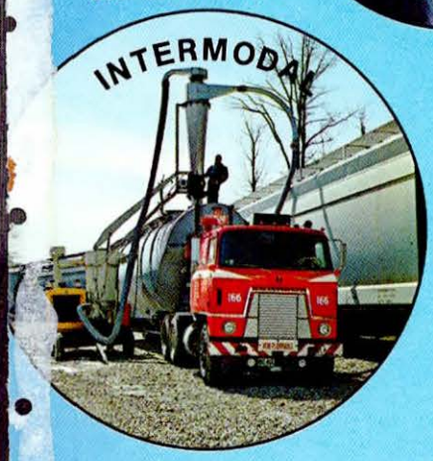

closely with you to help determine the most advantageous rates, the shortest and fastest routes, the most efficient methods of distribution on or off our rail lines. L&N Freight Traffic Representatives know their business and can help you get your goods to the marketplace. *We're flexible.*

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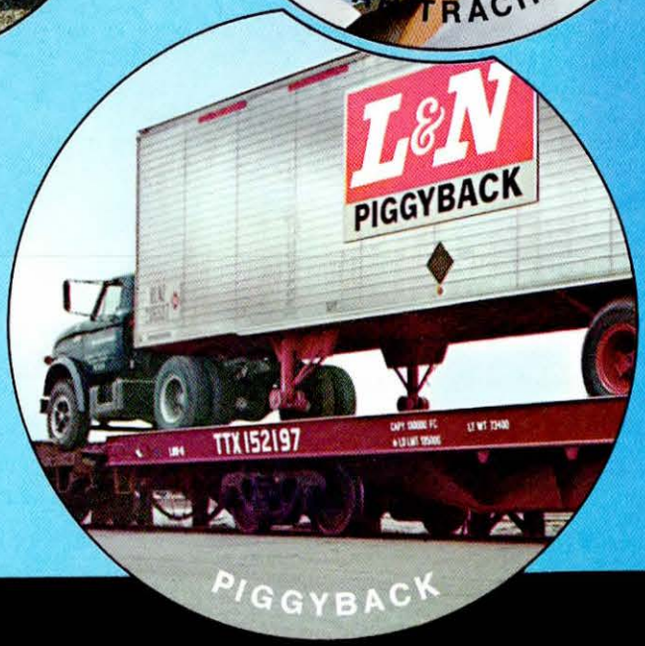

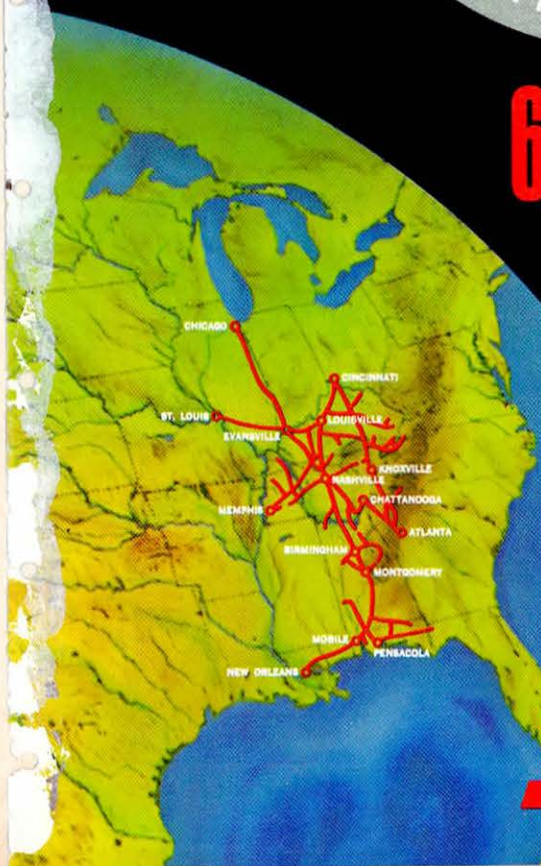

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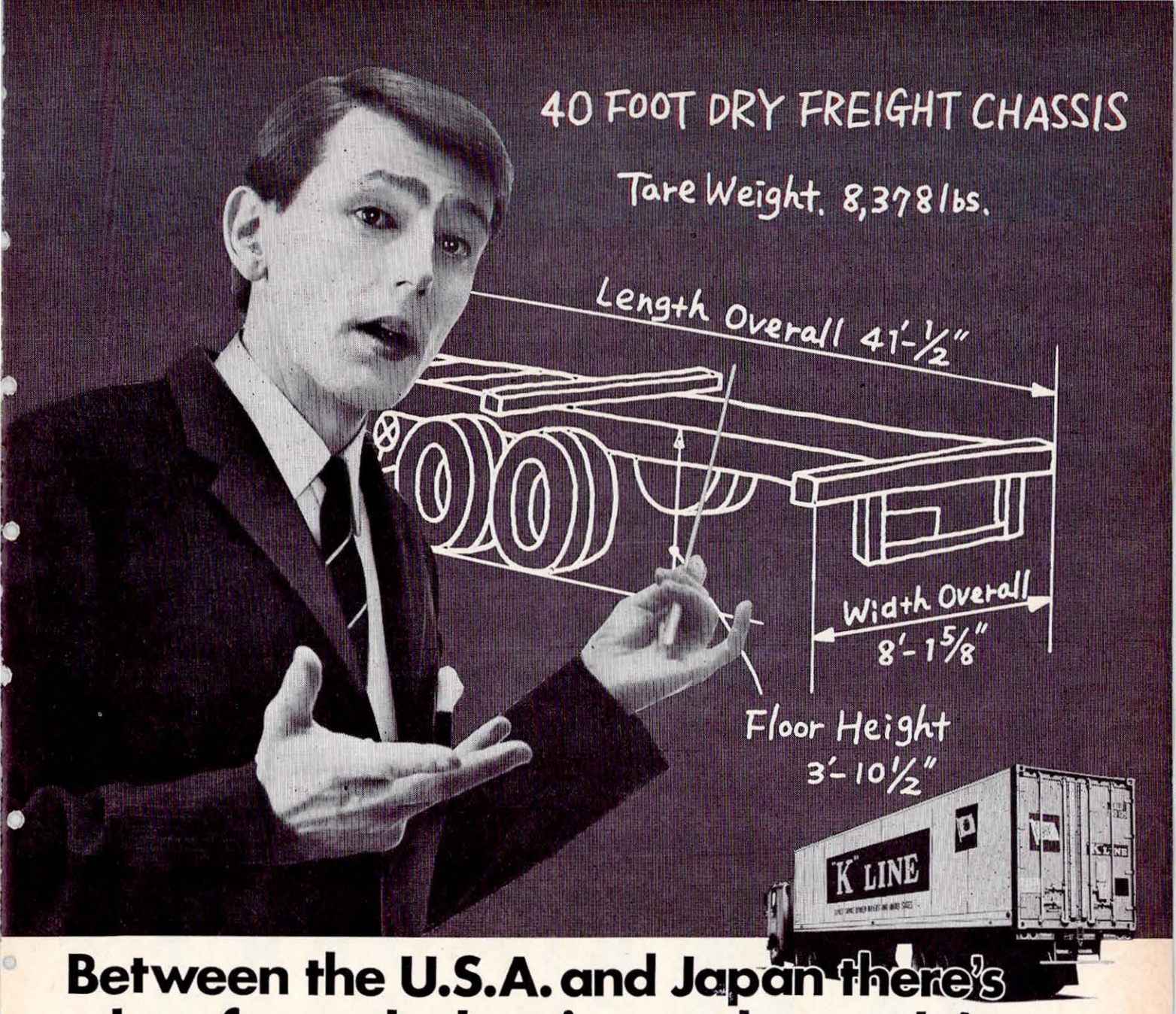

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BOOKSHELF

ELECTRIC COMMUTER CAR DATA BOOK (Institute for Rapid Transit, 1612 K St., N.W., Washington, D.C. 20006; $5) is a spiral-bound, 21-page publication listing engineering data on all cars of this type built and placed in operation in the U.S. since 1957. It was compiled by Charles E. Keevil, enginering consultant to the Institute.

MODEL LEGAL FORMS FOR SHIPPERS, compiled and edited by Stanley Hoffman, contains more than 190 legal forms and contract clauses used in transportation. Each of the book's ten sections has a variety of model forms and provisions covering trackage agreements, freight consolidation, equipment leases and private carriage. Also included are claims, storage, contract carriage, regulatory pleadings and sales terms.

There are many references to authoritative source materials and helpful commentaries. The book, designed especially for industrial transportation executives, attorneys and practitioners, also provides valuable guidance to purchasing and marketing managers, carriers and warehousemen.

The editor, a member of the law department of Union Carbide Corp., is president of the New York chapter of the Association of Interstate Commerce Commission Practitioners. *500 pages; price: $24—plus handling and shipping charge of $1.65, unless payment accompanies order; Transport Law Research, Inc., P.O. Box 95, Mamaroneck, N.Y. 10543.*

WATERSIDE PLANT LOCATIONS & EXPANSIONS. This booklet lists the individual facilities built, expanded or planned for construction at water-oriented sites in 1969. The total built or announced for the year was 582, reflecting a growth rate unmatched in any other year since American Waterways Operators started keeping records on such developments in 1952.

"The 582 facilities in 1969," says the foreword, written by Braxton B. Carr, president of AWO, "included 169 terminals, docks and wharves; 161 chemical plants; 80 general manufacturing units; 52 metal producing plants; 48 paper and wood products installations; 19 petroleum installations; 10 grain installations; 10 power installations; 9 shipyard and related units; six rubber plants; three glass-making facilities; three cement units; three sulphur producing units; two marine railways; two coffee plants; and one sugar refinery . . . Two hundred and seventy-three of the 582 projects represented capital investment expenditures totaling $3,469,260,00. Investment expenditures were not reported for the remaining 309 developments." *25 pages; map showing inland waterways of the United States; American Waterways Operators, Inc., 1250 Connecticut Ave., Suite 502, Washington, D.C. 20036.*

A DICTIONARY OF ALLOYS, by Eric N. Simons, is a reference work describing the properties, compositions, functions, applications and, where applicable, the disadvantages of a wide range of non-ferrous alloys. *192 pages; price: $15.00; Hart Publishing Co., New York City.*

BEARING TECHNICAL JOURNAL combines a textbook of basic bearing technology with selection data, ratings, and specifications for ball and roller bearings. It covers theory, research and experience in practical bearing application. *266 pages; available from Link-Belt/FMC, Prudential Plaza, Chicago, Ill. 60601.*

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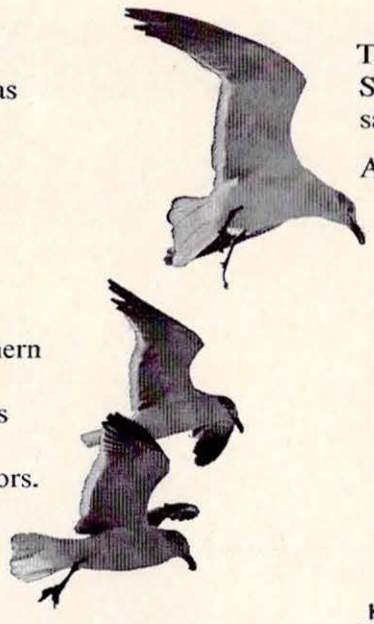
We have them. And they run from Kansas City to New Orleans, Baton Rouge, Lake Charles, Beaumont, and Port Arthur.

When you go transoceanic, make your first port of call the Kansas City Southern office nearest you. Our knowledge of shipping schedules, tariffs, and customs (both here and abroad) can help you avoid expensive export and import errors.



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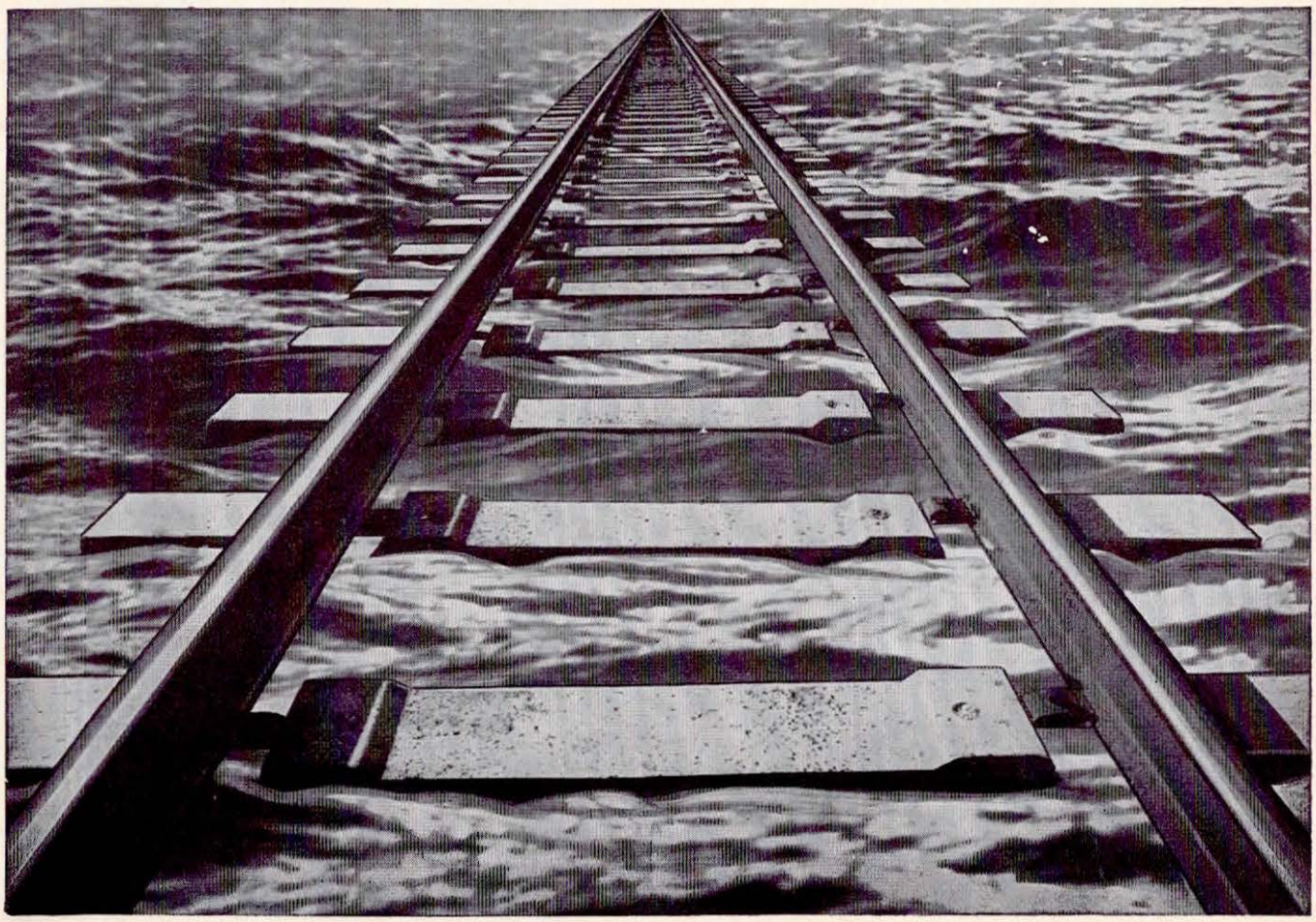

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"Max, how fast can you guarantee a car reservation?"

Max, our computer, gets a little carried away sometimes. Just the same, he's a mechanical marvel. He's on duty 24 hours a day, keeping a constant inventory of all our cars. That's why only National can *guarantee* reservations.

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Max knows, at the instant you call, what cars are available at every National location. When he says yes, he isn't guessing.

National features all new Chevys, Pontiacs, Buicks, Oldsmobiles, and Cadillacs, and other fine cars, at 2400 worldwide locations.* And in the U.S. you'll get a fist full of S&H Green Stamps, too. So please excuse Max's conceit. After all, Max knows he's the only computer that guarantees car reservations. And only National has Max. Let Max do it.

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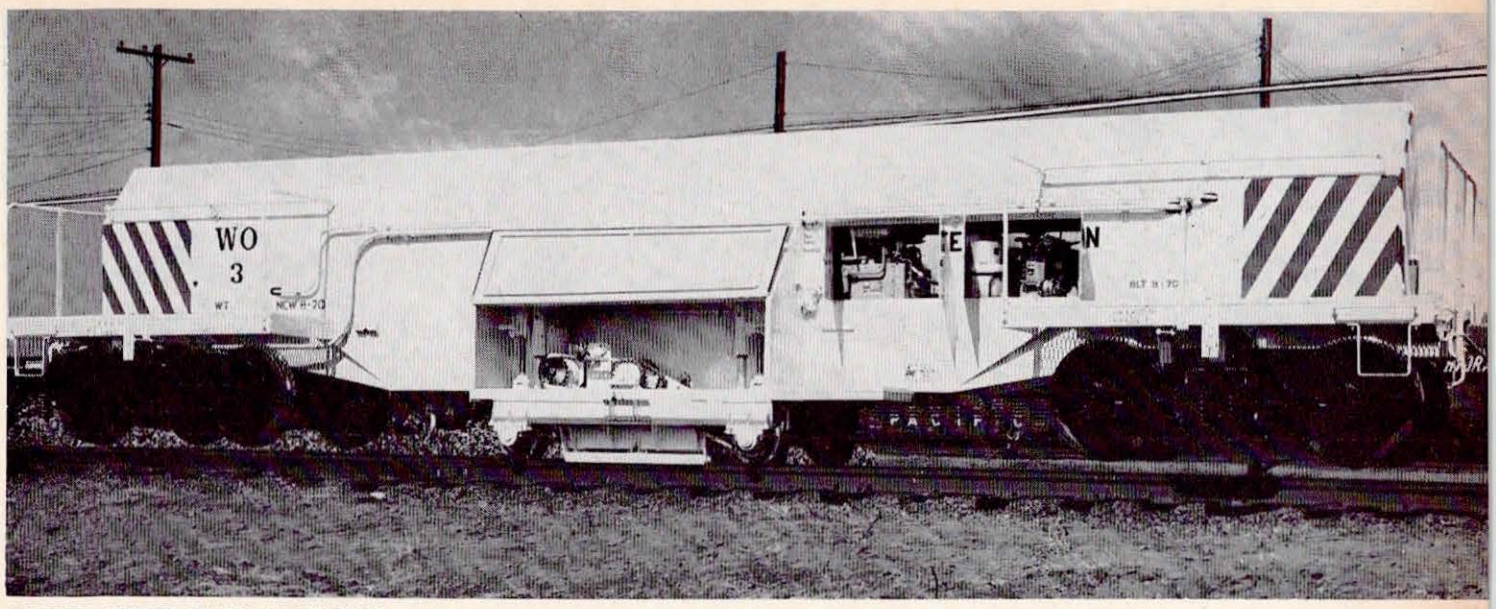

BETTER TRACK-SCALE ACCURACY may be assured by use of this specially designed Gunderson Bros. test car.

New scale test car reduces error

The new 40-ft-8-in.-long car can be operated safely at passenger-train speeds.

A weighing error of only ¼% on a thousand carloads moved at a rate of $2 per cwt could produce an under-or-over-charge of $4,100. Undoubtedly there are substantial revenue losses when scales improperly indicate the weight of empty and loaded freight cars.

Recently, Gunderson Bros. Engineering Corp. of Portland, Ore., delivered a specialized scale test car which should go far in increasing the accuracy of track scales in the State of Washington. Unlike many existing test cars which are converted from other pieces of equipment by ballasting with concrete and old rails, the new car is designed to do its particular job with special emphasis on accuracy, speed and safety of operation. One feature that promotes these objectives is the minimum of horizontal surfaces that can accumulate dirt, ice, snow and water. Areas which might become depositories for debris are visible and easily reached for removal of such debris. The underframe is relatively free of wide ledges which could accumulate dirt.

● **Center loadings.** A bogie truck in the car's center can support the entire car weight on 7-ft. wheel centers; alternatively a 4-ft. shoe can carry the total car weight to the shortest of electronic scales presently in use. The car can elevate itself and move on and off the scale under its own power, making it unnecessary for a switch engine and crew to stand by.

Unlike many of the short scale cars now in service which are limited to speeds of 35 mph, WO3 can be operated safely at passenger train speeds and thus be moved quickly from one track scale location to the next. This facilitates frequent scale testing with attendant step-up in scale accuracy. Increased revenue is expected to be more than adequate to return the scale car's cost and operating expense soon.

The new Gunderson scale test car is 40 ft. 8 in. long, 9 ft. 2½ in. wide, 8 ft. 4 in. high and has a ballasted weight of 95,000 lb. It is designed to comply with all AAR and DOT requirements.

Ballast consists primarily of concrete with steel punchings. While the car is designed to minimize weight fluctuations, some variations in weight cannot be avoided. Cabinets at each end of the body, therefore, provide space for small adjusting weights to compensate for wheel wear, water load and minor dirt build-up. These adjusting weights are also used in balancing the car for equal weight at each end, car level being accurately determined with a transit. The final test car weight is checked on a master scale.

At each end of each body bolster, a swing block can be rotated by a handle from above and swung into the space between side frame and bolster to lock the trucks. This block minimizes the distance which the car must be lifted since it prevents release of normal spring tension. It also prevents the trucks from turning and insures positive relocation of the trucks on the rails. The major function is, of course, to pick up the trucks as the car is lifted to the bogie wheels or center shoe. When not in use, each of the four blocks fits into a clip and is padlocked to avoid any possible interference with the trucks when the car is in motion.

● **Its boot straps.** To accommodate this car on short scales, the central bogie with 7-ft. wheel centers, is lowered hydraulically to raise the entire car body and trucks off the rails. Hydraulic pressure is supplied by propane-fired gas engine driving a pump with proportionator, check and relief valves, and four hydraulic cylinders with one control valve and an operating handle on either side of the car. Car movement on and off the scale is by hydraulic motor-chain drive to the bogie wheels with a single control valve again operated by handle from either side of the car. The car is equipped with truck-mounted air brakes, the AB valve and reservoir being located in the main body of the car.

A second type of scale test car, without the bogie and its raising and traveling mechanism, is also supplied by Gunderson in the form of a monitor test car to be used in on-scale areas. This car may be run onto the scale at the start of each day, insuring constant scale accuracy. The monitor car, ballasted up to 220,000 lb., simulates an actual car and makes a rolling test over the scale. ■

SUPPLY TRADE

Clinton R. Black III
GATX

Donald W. Wessels
Sands

Clinton R. Black III has been elected vice president, tank car sales and marketing, **Transportation Division, General American Transportation Corp.** Mr. Black has been the division's director of marketing.

Donald W. Wessels, manager KarTrak sales, **Sylvania Information Systems,** Waltham, Mass.,h as been named vice president for marketing. **Sands Measurement Corp.,** Dallas, Tex., developers of the new computerized coupled-in-motion railroad car weighing scale.

Arthur W. Goetschel, Jr. has been appointed manager, systems, **AMSTED Industries.** He was formerly assistant treasurer, **Griffin Wheel Co.,** an AMSTED operating unit.

James T. Smith has been named chief mechanical engineer, **Transportation Products Division, National Steel Corp.,** with headquarters in Chicago, to succeed **M. M. Anderson,** retired.

Carl A. Hansen has been named director of manufacturing services, **Thrall Car Manufacturing Co.** He was formerly assistant master mechanic, **Detroit Diesel Engine Division, General Motors Corp.**

John E. Chapman, formerly with **Pullman-Standard,** Chicago, has been appointed district sales manager, **Brenco Incorporated,** San Francisco.

Elvin R. Beck has been appointed manager, railroad sales, **Ansonia Wire & Cable Co.** of Ashton, R.I., with headquarters at Philadelphia, Pa. Mr. Beck has had 11 years of railroad experience with the Penn Central. He was most recently in sales to railroads for Exide Battery.

William C. Finkenstaedt has been elected corporate vice president, **Evans Products Co.,** and appointed assistant general manager, **Industrial Products Group.** Mr. Finkenstaedt, formerly general manager, Industrial Division, will have headquarters at Des Plaines, Ill.

Federal Sign & Signal Corp. has relocated its Canadian sales office at 234 Yorkland Blvd., Willowdale, Ont. **Peter L. Randell** continues as Canadian national sales manager.

INDUSTRIAL TRAFFIC

Alan L. Schmidt and **Richard W. Szynal** have been appointed traffic and transportation analysts, the **Richardson Co.,** Melrose Park, Ill. Mr. Schmidt formerly worked for the **Burlington** and most recently was assistant manager pricing, Burlington Truck Lines. Mr. Szynal formerly worked for the Gulf Mobile & Ohio and most recently was employed by Consolidated Traffic, Inc.

George T. Brewer has been named manager of transportation pricing and research, Transportation and Distribution Department, **A. O. Smith Corp. Richard C. Cook** has been appointed manager of transportation operations and communications.

Edward A. O'Donnell has been appointed traffic manager, **Needham Packing Co.,** Sioux City, Iowa. He was formerly manager—traffic services department, **Iowa Beef Processors, Inc.**

OBITUARY

Francis A. Steffes, 64, manager of data processing, **Burlington Northern,** died Sept. 27 in Sherman Hospital, Elgin, Ill.

William B. Thompson, Jr., 53, assistant vice president, Legislative Department, **Association of American Railroads,** died Oct. 12 at the National Institute of Health, Bethesda, Md.

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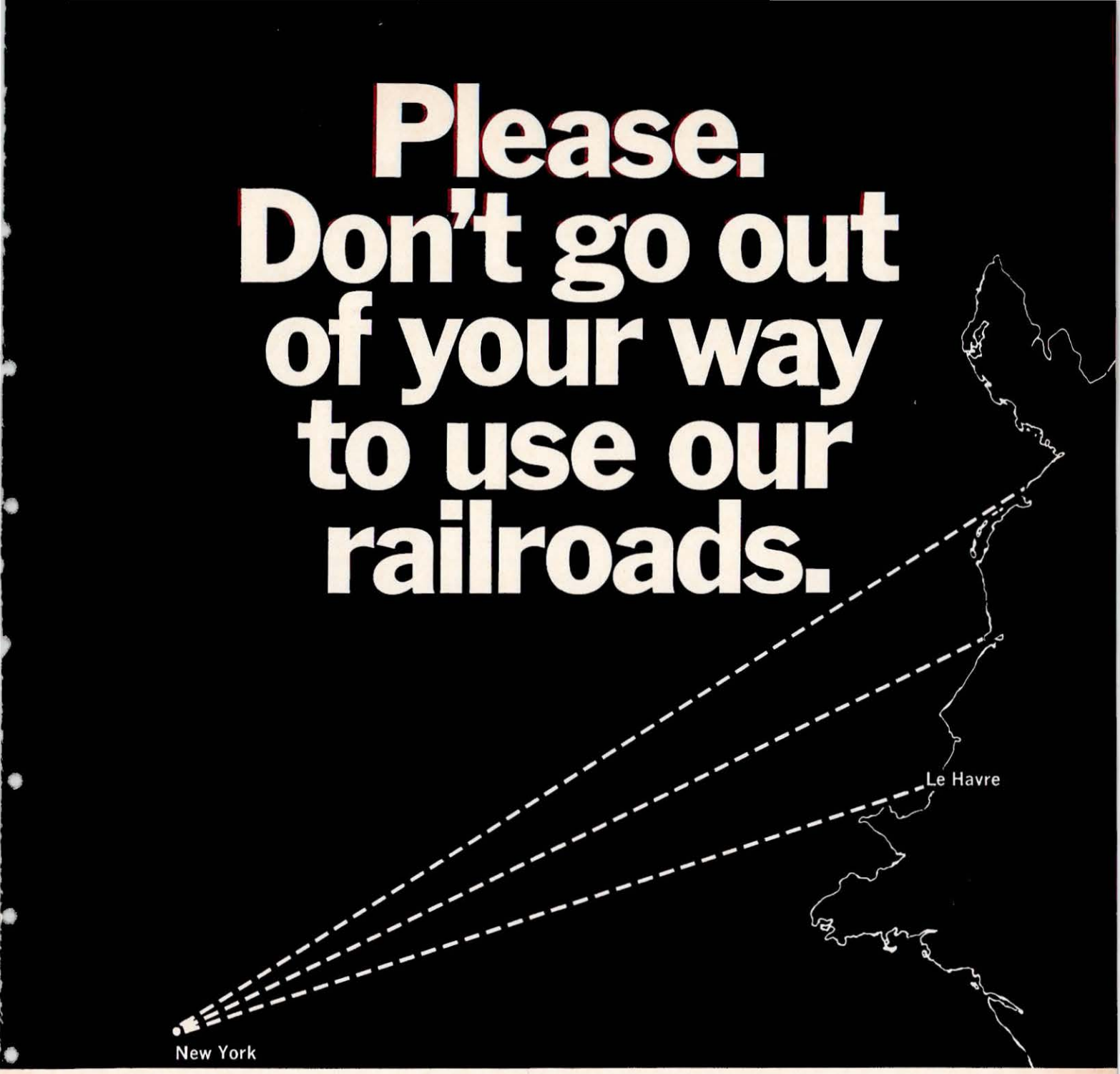

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For further information write to the French National Railroads 610 5th Ave., N. Y. New York Freight Department D. Or call French National Railroad at 582-2110.

FRENCH NATIONAL RAILROADS

Circle 43 on coupon page 95

LETTERS

Mournful numbers

Chicago

To the Editor:

I want to commend you for your perceptive "Viewpoint" article, "A story told in mournful numbers" (RA, Sept. 28, p. 78).

The material filed in support of the 15% freight rate increase petition in Ex Parte 267 should, indeed, be read by "every Congressman, every shipper—every railroad speech writer." Moreover, I hope these people have the opportunity to read your "Viewpoint" article. It, alone, can be very helpful.

Theodore E. Desch
Vice Chairman and Chief Executive Officer
Chicago, Rock Island & Pacific

Concrete tie specifications

Baltimore, Md.

To the Editor:

Your article beginning on page 36 of the August 10 issue, entitled "Concrete ties can be interspersed," contains information which could be misleading. Under the heading, "Features of the Model 4 GH tie," is the statement "The concrete tie . . . is made according to AAR specifications adopted May 1, 1968." The design specification referred to was, in fact, prepared by the staff of the AAR Research Center at Chicago. And in this sense it was, I assume, approved by this organization. The specification, however, also carries the heading, "Preliminary—not for publication."

The AREA, acting in its role of the Engineering Division of the AAR, has not adopted this design specification. In fact, the AREA has formed a committee with the specific charge of formulating a *performance* specification for concrete ties. This committee was not formed until the spring of 1969. One of its aims is to religiously adhere to the principle that design and performance criteria cannot be intermixed (even if wood and concrete ties can be). We do not feel that it is a proper role for AAR, AREA or any other railroad industry organization to specify or dictate manufacturing design to the supply industry. We do intend to specify necessary performance criteria which will protect both suppliers and the railroads.

The courtesy and technical interest of the Kansas City Southern made it possible for the AREA Special Committee on Concrete Ties to inspect both the GH Model 4 ties and the method used for their installation. We were favorably impressed by several aspects of both. However, we feel that it would be unfortunate if your readers were left with the impression that any commercial product met specifications not yet released or had the particular blessing or sponsorship of the AAR or its Engineering Division.

G. H. Way, Chairman
AREA Committee on Concrete Ties

(The specification mentioned in the article may not have been adopted by the AAR, as Mr. Way says, but it is the only available specification on concrete ties that has been prepared by the Association's Research Center. Pending completion and adoption of the performance specification which Mr. Way implies is under preparation, what specification would a manufacturer of prestressed concrete ties use other than the one mentioned in the article? Since the article did not mention the American Railway Engineering Association it could not have implied that the specification mentioned had been approved by that association.—Editor)

International COFC movement

Roanoke, Va.

To the Editor:

The Norfolk & Western certainly appreciates your article in the Aug. 10 issue on the first international COFC movement from Portsmouth to Mexico City. However, the article failed to mention certain important work done by W. L. Webber, traffic manager, and A. R. Ramos, assistant traffic manager, Texas Mexican Railway; W. K. Clark, assistant to general traffic manager, Southern Pacific; and H. E. Grohosky, assistant superintendent of transportation, trailer flat-car service, Southern Pacific, in developing the through concept. . . .

The article mentioned a routing which is available under the N&W's international circular; however, this first movement moved via N&W-St. Louis-Cotton Belt-Southern Pacific-Texas Mexican-Laredo-National Railways of Mexico. Also the efforts of A. B. Scanfreight, and in particular Bengt Tornell, who acted as a catalyst and assistant in putting this package together for the account of the shipper and all involved carriers, certainly should not be overlooked.

Hopefully, you will be able to give acknowledgement to the efforts of those mentioned above in connection with this movement which proves that railroads cooperatively working together can be a very competitive force in securing traffic not normally moving via U.S. rails.

R. B. Short,
Director TOFC-COFC
Norfolk & Western Railway Co.

Penn Central "far from shattered"

Phoenix, Arizona

To the Editor:

Regarding your viewpoint on page 50 of the July 27 issue of Railway Age, I'm sick and tired of hearing about picking up the pieces of the shattered Penn Central.

The Penn Central is far from shattered. This railroad has the best sales force in the business, and is looking forward *eagerly* to getting back on the track and we will do just that. The motto here is "CAN DO" not "WHAT SHOULD WE DO." For all those who come to bury us, I suggest they go out for a short beer while we get reorganized.

Walter J. Kelley, Jr.
District Sales Manager
Penn Central Company

Student chooses railroading

Stillwater, Okla.

To the Editor:

Thank you and Railway Age for the new atmosphere being set in the last few editions of Railway Age. . . .

I am an avid rail enthusiast and plan to make railroading my career on graduation from college. As such, I am depressed to hear the gloom and prophecies of death concerning the railroads that have been spread around. Even I was about to believe that the railroads were doomed.

But then came the new atmosphere. It is certainly a fine idea to be telling about the new methods and the successes of the railroads. In this day, the railroads have an unlimited future, if they will quit feeling sorry for themselves and rise to the occasion.

Keep up the good work at Railway Age.

Lowell Stephen Schmidt
Civil Engineering Sophomore
Oklahoma State University

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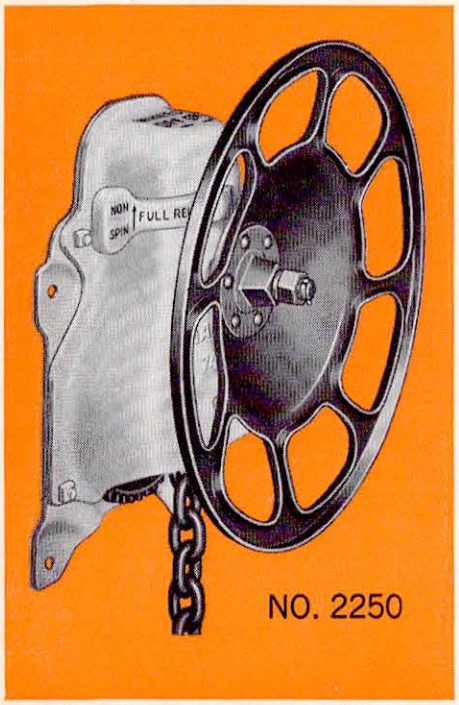

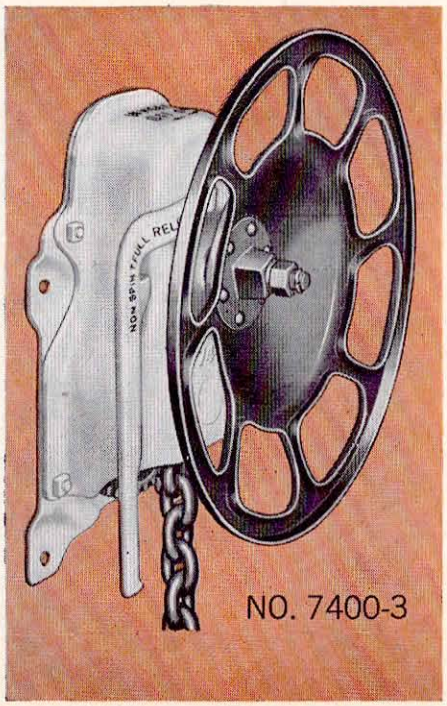

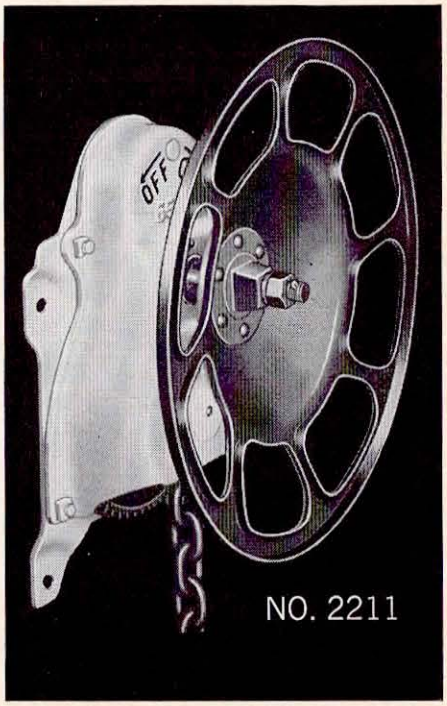

Circle 44 on coupon page 95

Trailer Train that's quite

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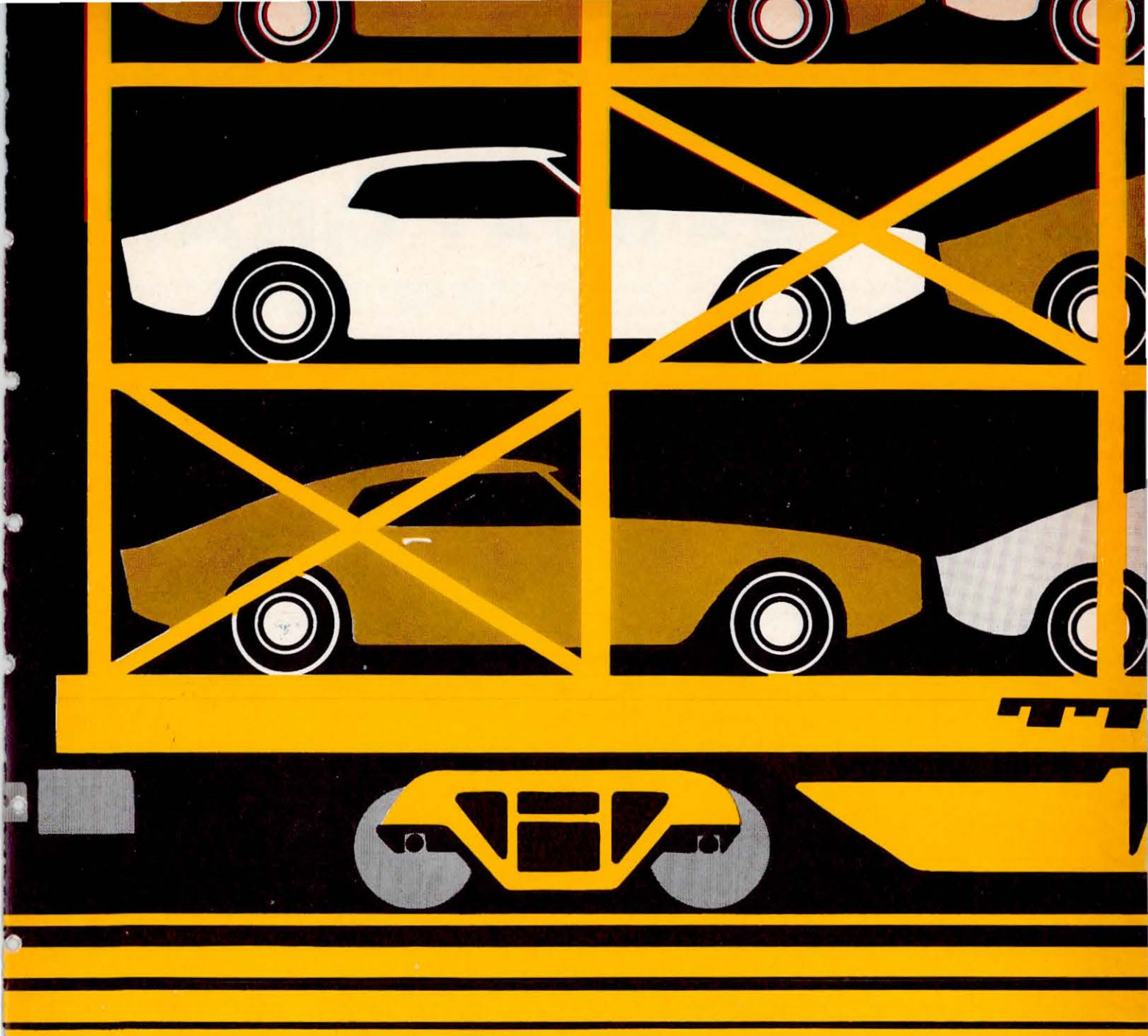

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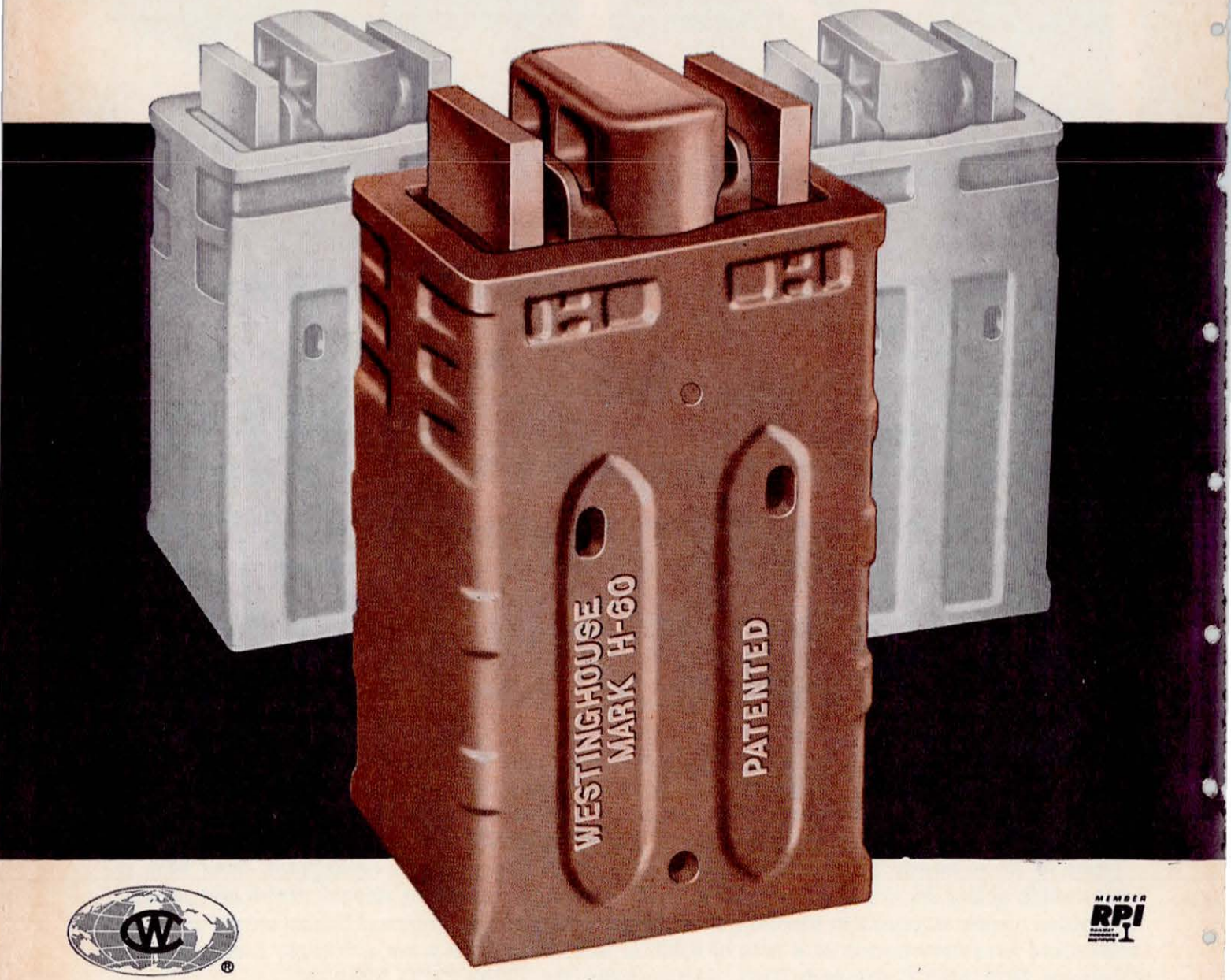

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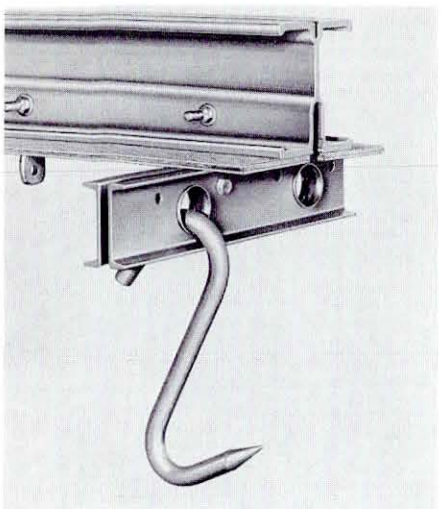
Circle 46 on coupon page 95

New Products Report

Silicone lubricant (RA-1)

Silicone lubricant, a moisture-resistant, bimetallic lubricant packaged in an aerosol container, not only lubricates, but prevents rust and corrosion caused by moisture seepage. When sprayed on wheel hubs and lugs, it is said to assure ease of tire removal. It does not wash out on a wet road and is said to assure maximum lubricity within a temperature range of -70 to 400 deg F. It can be used on aluminum, brass, rubber, plastics, wood, glass and other difficult-to-lubricate materials. *General Electric.*



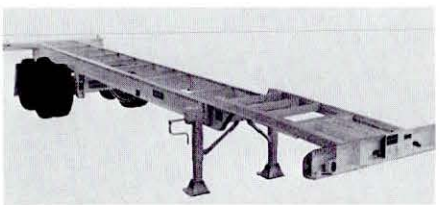
Meat rail (RA-2)

The new Fruehauf meat rail is constructed of a double C-type extrusion riveted back-to-back with a specially designed stainless-steel collar. This is said to resist meat hook wear and reduce aluminum dust contamination generated by the hook wearing on the rail. The lightweight assembly gives definitive 6-in. spacing to the meat hooks, keeping them properly spaced and preventing them from sliding.

Because the meat rail takes up only 2¾ in. of space from the ceiling over-all cargo area is increased and load height area is increased approximately 1 in. over the tubular method and up to 1½ in. over the loop-type rail. *Fruehauf Corp.*

Reefer containers (RA-3)

Refrigerated containers powered by a unitized, self-contained, recessed and nose mounted diesel-electric refrigeration/heating system can protect perishables at pre-set temperatures in every climate. The floor of the CTI reefer consists of integral T-sections, perforated by cross-flow holes to increase air circulation. This flow assures temperature control on six sides of a lading. The container carries 56,275 pounds of cargo with a full fuel tank and has a volume of 1997 cubic feet. Units are available for lease. *Container Transport International.*



Container chassis (RA-4)

Greater operating ease, versatility and damage protection are features of the narrow-frame gooseneck container chassis designed to accommodate 40-ft ISO sanctioned tunnel-type containers. The chassis, engineered to meet all Federal Motor Vehicle Safety Standards, is designed to keep an over-all load height of 12½ ft. It is equipped with the F-2 sliding suspension which permits positioning under construction in 15 different locations to meet various state highway regulations relative to weight distribution.

Full-width front bolster is equipped with pin-through lock securing devices to handle any type corner fitting in service. A high-strength steel shroud, 3/8 in. thick, protects gladhands, lights, wiring and securing devices. Lights and twist lock handles are recessed into the rear bolster for maximum protection. *Fruehauf Corp.*

Refrigeration equipment (RA-5)

The CWE Model 100-45 unit is a larger version of the Thermo King line of one-piece, all-electric refrigeration and heating equipment for containers. It has a 10-hp motor and, like the 50-45 (5-hp) and 75-45 (71/2-hp) models, is

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installed flush with the front of the container and the condensing evaporator sections are side-by-side. Required current for the externally powered CWE units is 220-volt, 3-phase, 60-cycle, with 440-volt operation also available. A generator, such as the company's Model CGS1250DN, can be mounted underneath the unit. *Thermo King Corp.*

Trailer bulkhead (RA-6)

A sliding adjustable bulkhead, called Camus I, secures cargos in piggyback trailers by remaining in constant contact with the load, moving forward if the load either shifts or compacts in transit. Another feature of the bulkhead, which can be raised easily and stored at the top of the trailer during loading or unloading, is that the trailer's doors cannot be closed until it is secured in place. *Aeroquip.*

Transfer unit (RA-7)

With the Transdisc device, flat-bottomed objects such as cartons, crates, pallets and containers, can be moved in any direction or turned with little effort. The 2-lb corrosion-resistant and self-cleaning device has a load rating of 500-lb with a height of only 31/4 in. Eight load-supporting rolls are mounted in a tilted disc which rotates freely to allow omnidirectional capability.

The tilt of the disc results in a profile curvature equivalent to a 15-in.-diameter wheel, providing smooth movement of load even with warped or deflected pallet edges. Eight holes in the base of the floor-mounted device permit index mounting in 45-deg increments to suit installation requirements. Spacing can be as close as 61/2 in. center-to-center. *Kornylak Corp.*

Aluminum cleaner (RA-8)

Zip Bright, a jelly for cleaning aluminum, is squirted out of its polyethylene container onto an oxidized area. Clean water is then used to wash the oxides away. The cleaner meets Military Specification MIL-C-5410B and others. It is said to produce a bright clean finish on machinery, industrial equipment, railroad cars, and other surfaces to which it is applied. It is said to be effective also for cleaning copper, stainless steel, nickel and other metals. It is available in 1/2 pints and quarts. *Devcon Corp.*

Load securement system (RA-9)

The multi-purpose trailer load securement system for application to new or existing flatbeds secures containers, heavy equipment, farm implements, and other commodities with the use of chain assemblies and container couplers secured into special anchor channels.

Container end bolsters with built-in retractable twist lock assemblies secure containers at all four corners and retract below the floor level by the use of single operating handles. ASA type bayonet twist locks adjust vertically to two different container locking heights. Center coupler assemblies adjust to the various loading combinations of USASI modular length containers, retracting below trailer deck to permit loading 40-ft containers. The trailer, the main rails of which are made of high-tensile steel, is capable of supporting 60,000-lb concentracted loads in any 5 ft of length. *Portec Inc.*

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Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Oct. 10 totaled 549,823 cars, according to the Association of American Railroads. This was a decrease of 1.2% below the preceding week, and a decrease of 7.5% below the corresponding week last year. Ton-miles generated by carloadings in the week ended Oct. 10 are estimated at 15.1 billion, 6% below the corresponding week last year.

REVENUE FREIGHT CARLOADINGS

Commodity	Oct. 10 week	Oct. 3 week
Grain	32,086	31,323
Farm products	20,470	15,960
Metallic ores	46,344	45,886
Coal	110,103	106,386
Crushed stone, gravel & sand	33,345	34,739
Nonmetallic minerals	9,809	11,210
Grain mill products	19,344	21,325
Food & kindred products	25,822	26,446
Primary forest products	25,753	26,103
Lumber & wood products (except furniture)	14,461	15,407
Pulp, paper & allied products	23,194	24,391
Chemicals & allied products	26,769	27,789
Petroleum products	10,299	10,207
Stone, clay & glass products	19,923	20,805
Coke	7,559	8,496
Metals & products	22,329	25,128
Motor vehicles & equipment	12,707	12,588
Waste & scrap materials	14,145	14,510
Forwarder & shipper assn. traffic	7,049	7,285
All other carloads	67,542	69,847
LCL traffic	770	837
Total cars loaded	549,823	556,668

CUMULATIVE TOTAL, 41 weeks	1970	1969	1968
	21,553,603	22,181,379	22,276,392
Estimated revenue ton-miles (billions) 41 weeks	599.2	602.0	586.0

PIGGYBACK CARLOADINGS

U.S. piggyback loadings in the week ended Oct. 3 totaled 26,355 cars (7.6% below the corresponding week last year), and 43,922 trailers or containers (down 8.4% from 1969). Cumulative volume for the first 40 weeks of 1970 is 980,279 cars (5% below the 1969 total), and 1,619,820 trailers or containers (down 4.5% from 1969).

IN CANADA

7 days ending	Revenue Cars Loaded	Cumulative Totals
Sept. 21, 1970	80,655	2,759,490
Sept. 21, 1969	75,212	2,601,343

FREIGHT-TRAIN CARS

● *Aluminum Company of America.*—Will supply all of the 2.7 million pounds of aluminum for 300 gondola cars being built by Greenville Steel Car for lease to Cleveland Electric Illuminating Co. (RA, Sept. 14, pp. 12, 123).

● *Chesapeake & Ohio/Baltimore & Ohio.*—Will build an additional 2,100 100-ton, roller-bearing-equipped coal hopper cars at C&O's Raceland Car Shops, Russell, Ky. The cars will cost $26 million. The new car order is the first under C&O/B&O's capital improvement program for 1971. Work on the cars will start shortly after the first of the year.

● *Yugoslavia.*—Has requested bids by no later than next Jan. 6 on the supply of 10,000 four-axle freight cars, including flat, box and moveable-top box cars (for top loading). No less than 500 cars of any one type will be ordered. Pertinent documents can be obtained from the U.S. Embassy in Belgrade which will airpouch them to any interested U.S. firm, pending receipt of a $200 certified check made payable to American Embassy, Belgrade.

● *Serviceable cars.*—Revenue freight cars in serviceable condition owned by Class I railroads on Sept. 1 totaled 1,350,838, compared with 1,362,823 on Sept. 1, 1969, according to most recent AAR Car Service Division report. Estimated total ownership of all railroad- and privately-owned freight cars on Sept. 1 (see table below) was 1,789,627 (average capacity: 66.81 tons), compared with 1,788,264 (average capacity: 65.19 tons), on Sept. 1, 1969.

ESTIMATED OWNERSHIP—ALL REVENUE FREIGHT CARS
(Sept. 1, 1970 vs. Sept. 1, 1969)

		Box	Covered Hopper	Gondola	Hopper	Flat	Refg.	All Other	TOTAL
Class I	1970	541,960	130,132	190,036	390,938	74,077	55,103	51,178	1,433,424
	1969	544,868	125,149	193,711	399,586	70,465	53,499	54,359	1,441,637
RRO&C Refgs.*	1970	0	0	0	0	0	44,874	0	44,874
	1969	0	0	0	0	0	46,461	0	46,461
All Other Private	1970	1,280	36,275	2,026	2,468	53,203	15,847	175,631	286,730
	1969	1,108	33,007	2,121	2,261	47,821	14,371	175,454	276,143
Class II & S&T Cos.†	1970	9,744	709	4,222	6,964	534	1,457	969	24,599
	1969	8,282	703	4,494	7,442	556	1,428	1,118	24,023
GRAND TOTAL	1970	552,984	167,116	196,284	400,370	127,814	117,281	227,778	1,789,627
	1969	554,258	158,859	200,326	409,289	118,842	115,759	230,931	1,788,264

* Railroad owned and controlled refrigerator car lines.
† Class II railroads and switching and terminal companies.

FOREIGN

● *Companhia Vale do Rio Doce (Brazil).*—Placed an order with General Telephone & Electronics International Inc. for supply and installation of KarTrak ACI systems. CVRD is an iron-ore railroad operating between Itabira, in Minas Gerais State, and the Atlantic ports of Tubarao and Vitoria.

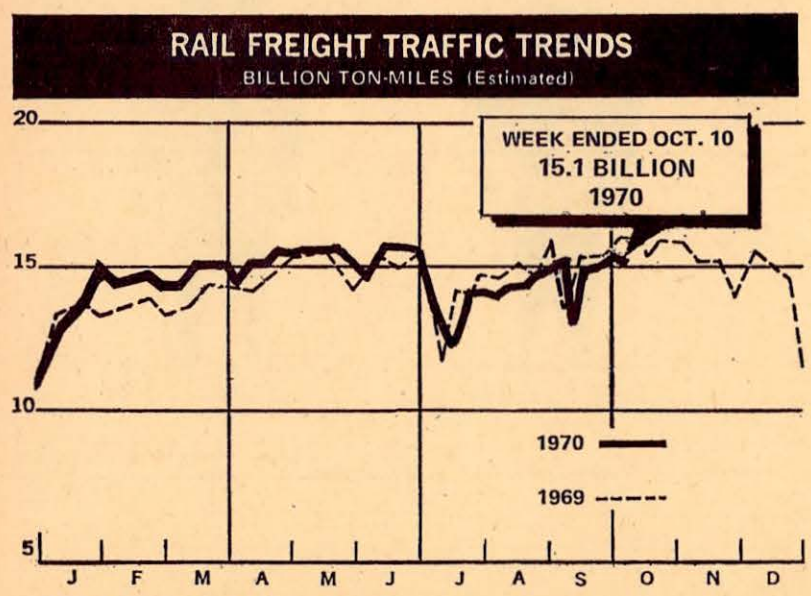
● *New Zealand Railway.*—Ordered 15 2,600-hp U26C diesel-electric locomotives from General Electric. The locomotives, most powerful ever to go into service in New Zealand, will be used on NZR's "Silver Star" express service. They will haul new stainless steel, all-sleeping passenger cars on the Wellington-Auckland Night Limited Express. Geared for 75-mph service, the U26Cs will reduce the present running time of 13½ hours by 1½ hours. They also will be used in express freight service between the two cities. The locomotives will be delivered in 1971.

TRANSIT

● *New York City Transit Authority.*—Placed a $6.1-million order for electrical equipment with Westinghouse Electric Corp. Under the order, the Westinghouse electronic power conversion department will provide systems engineering, electrical equipment and control for the NYCTA rapid transit system. The equipment is to be installed and operating by mid-1972.

SPECIAL

● *Southeastern Pennsylvania Transportation Authority.*—English Electric Hewitt Rectifiers reports an order from SEPTA for 15,000 kw of rectifiers and associated equipment. A second order from Illinois Central, is for 6,000 kw of 1500 volt rectifier equipment. Together, the orders won by the British firm are worth $1,250,000.



Source: Association of American Railroads

NEW ORDERS FOR MACHINE TOOLS*

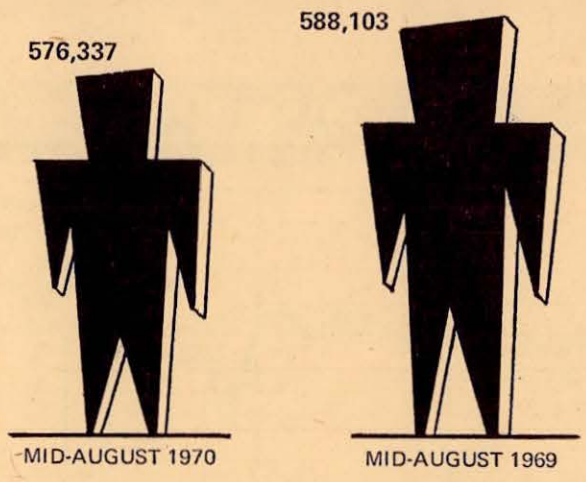
	August 1970 ($000)	August 1969 ($000)	8 mos. 1970 ($000)	8 mos. 1969 ($000)
Metal cutting tools	34,350	66,700	501,900	862,550
Metal forming tools	11,800	38,600	158,750	402,600

MACHINE TOOL SHIPMENTS*

	August 1970 ($000)	August 1969 ($000)	8 mos. 1970 ($000)	8 mos. 1969 ($000)
Metal cutting tools	61,250	74,050	696,300	769,100
Metal forming tools	32,050	30,700	314,100	254,250

*Including foreign and domestic.
Source: National Machine Tool Builders' Association.

RAILROAD EMPLOYMENT
(CLASS I LINE-HAUL RAILROADS)



Source: Bureau of Accounts, ICC.

Viewpoint

Freight-car supply: Is pooling the answer?

In his perceptive analysis of the car-supply problem, Maj. Gen. John P. Doyle placed the major blame for shortages on what he called the "my road comes first" attitude of numerous individual carrier managements.

"Car shortages stem primarily from fragmented management of the national car fleet," was General Doyle's decisive finding. "This fragmented management is responsible for poor car utilization, averaging 50 miles per day; high bad-order rates, averaging 5%; and inadequate long-range planning of carbuilding and overhaul to meet projected requirements on a national scale."

General Doyle concluded that any fundamental solution must lie in the creation of a national freight-car company. Such a company would own all general-purpose cars and furnish on call to any railroad the number and type of cars specified—at the time and place desired.

Unlike some other Doyle recommendations—those contained in the report he prepared for the Senate Commerce Committee in 1961—this one, fortunately, has not been allowed to gather dust.

Senator Warren Magnuson has now had General Doyle's argument on car-pooling published in the Congressional Record—along with two pieces of proposed legislation that make a healthy stab at the Doyle approach, though they do not go all the way (see page 33).

S.4463 would create a tax-free, quasi-public National Freight Car Corporation, to acquire a fleet of general-service cars for assignment to car-shortage areas.

S.4464, a companion and complementary bill, would establish a Federal insurance program to assist "individual railroads and their car-furnishing subsidiaries" to obtain private financing for their own car- and locomotive-acquisition programs.

"Both bills permit a pooling mechanism to achieve greater car utilization," Senator Magnuson emphasized.

NOT A NUMBERS GAME, BUT . . .

Railroad men and shippers are disappointed that these important bills went into the hopper so late in the session. There is no hope that they will be acted upon this year.

But as Senator Magnuson pointed out, they are at the very least "working papers" that can provide a springboard for action by the 92nd Congress in 1971.

Senator Magnuson made it clear, with his repeated emphasis on car-pooling and utilization, that he views car supply as something substantially more than a numbers game.

But two numbers are vitally important to this industry: S. 4463 and S. 4464. Shippers and railroad men genuinely interested in arriving at national rather than merely regional solutions will get copies of these bills, read them carefully—and, if they like what they read, get in touch with their Congressmen and Senators. And help make sure that the springboard is ready to spring when the next Congress assembles.

STATMENT of ownership, management and circulation (Act of October 23, 1962; Section 4369, Title 39, United States Code).

1. Date of filing, Sept. 29, 1970.

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B. Paid Circulation		
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2. Mail subscriptions	14,319	13,966
C. Total paid circulation	14,319	13,966
D. Free distribution **(including samples)** by mail, carrier or other means	4,536	10,636
E. Total distribution **(Sum of C and D)**	18,855	24,602
F. Office use, left-over, unaccounted, spoiled after printing	331	498
G. Total **(Sum of E & F—should equal net press run shown in A)**	19,186	25,100

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Circle 52 on coupon page 95

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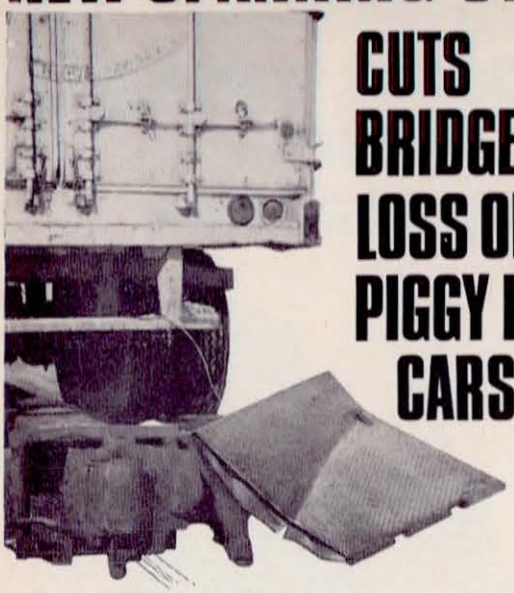

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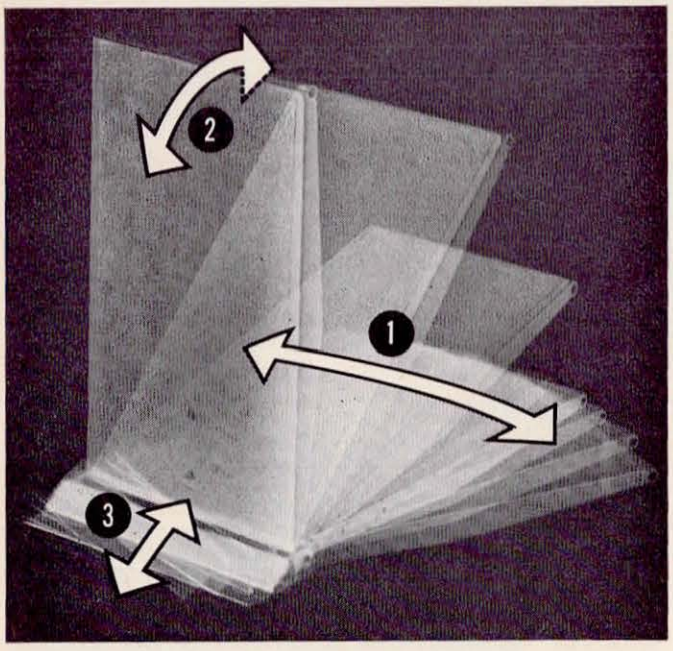

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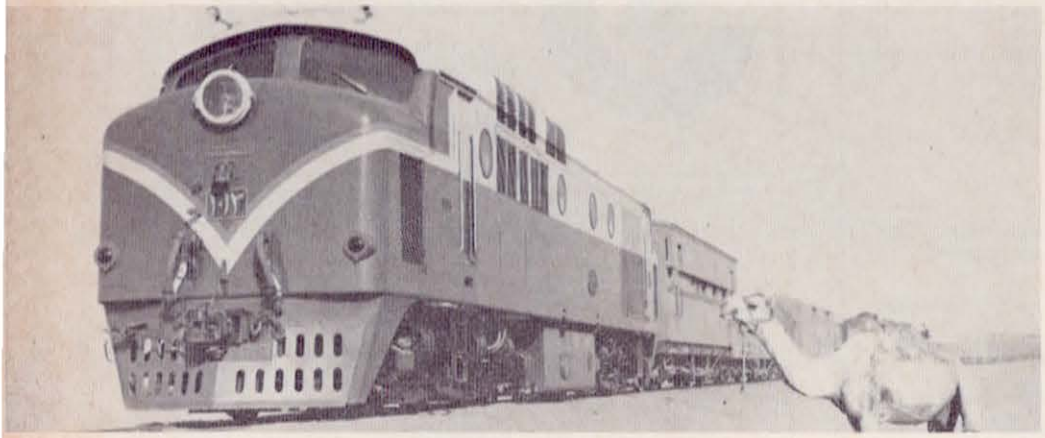

TWO TRANSPORT MODES meet along Sudan Railways' unballasted main line.

Sand and rain plague the Sudan

Flying low in a Twin-Otter from Khartoum to Atbara I got my first glimpse of what must be the world's only unballasted state-owned railroad—and got some idea of the problems involved in running the 3,000-mile system.

Those first impressions were confirmed at Sudan Railways (SR) headquarters in Atbara. Most of the high-traffic routes run through arid desert. Swirling sands are likely to block the line whenever the wind blows hard. And that's not the only climatic problem.

In July and August rain falls in torrents—not enough to unparch the desert, but enough to cause sizeable washouts on almost every line.

Luckily for SR officers, only one line—from Khartoum to Port Sudan—is used at anything like capacity. But a new economic program could lead to an annual traffic growth of 10%. If traffic is to be kept moving these major problems will have to be solved.

● **Menace of sand.** Chief M/W engineer Abdel Aziz Gasim told me: "Drifting sand is a menace. On some sections we've used timber screens, 6-feet high, to keep it off the tracks. On other sections we have sprayed crude oil on embankments and used the oil drums as pegs.

"But we don't have enough oil to do the job properly—and in any case I'm not sure it's an effective answer."

Chief Mechanical Engineer Abbas Ali Ragi also sees sand as his major enemy. "The dust gets everywhere—and especially it gets into our diesel engines and electrical equipment," he said with feeling.

Even the pressurized engine rooms of new English Electric locomotives weren't immune—though EE's engineer on the spot seems to have corrected things now. A third exhauster was also fitted to augment vacuum pressure. Some pressure for the train brakes had been lost, probably through dust entry.

Rain is the other enemy. Washouts hit the important Port Sudan line every year. Closure of other lines is not disastrous. Closure of the Port Sudan line hits the whole economy.

Said Gasim: "Washouts closed the Port Sudan line for a month in 1967—you can imagine how that hit our revenues. And it seems we can never really solve the problem.

"We use stone pitching on embankments and build culverts where flooding seems likely."

● **Track without ballast.** Lack of ballast is another factor which may seriously hamper SR if traffic figures really surge upwards. Only a few miles of the Port Sudan line, where gravel and stone chips are available, are ballasted.

The rest of the single-track system is laid direct on sand. Stone is used on some short sections as lateral support, not bearing ballast.

Gasim believes gravel to a depth of nine inches would improve operating conditions. But it seems likely that cost will rule this out for some time to come.

Operating speeds are naturally low—60 km/h (37.5 mph) on most lines. This has been raised on the Port Sudan line to 75 km/h (47.6 mph), following an upgrading operation completed this year.

Most ties are of domestic hardwood, but supply is irregular and they are attacked by white ants on some sections. Now SR officers are thinking of a gradual change to prestressed concrete ties.

Because the track is unballasted, Gasim feels there is no point in laying out money on track maintenance equipment. So track work is entirely manual, with gangs of 8-12 men covering stretches of 10-12 miles.

● **Plan for expansion.** A modest five-year expansion plan is due to go into operation this year. It will include purchase of 12 new diesel shunters, 1,087 freight cars, and expenditure of about $3 million on way improvements.

No new main line diesels are to be ordered. With 10 new EE, 1,850-hp diesel-electrics and 20 new Hitachi 1,200-hp units now in service, CME Ragi reckons he has the motive power situation in hand for the present.

There are still plenty of steam locomotives on line. Most are being relegated to light line and shunting duties. More than 60 of them were delivered to SR between 1950 and 1953, so they look like being around at least until 1990. Steam locomotives are not easily abandoned in Africa.

The whole of the SR fleet is being changed to automatic couplers, a job that should be completed within two or three years. Coupler chosen is the Alliance No. 2, which can be used with unmodified cars while the change is being made.

● **Soviet interest.** Undoubted Soviet interest in the Sudan economy has already been reflected in the railroad. The day after I reached Atbara a Soviet team left for Port Sudan. Among them were a mechanical engineer, civil engineer, an economist and a yard specialist.

Aim of the team is to study ways of improving line capacity without track doubling.

Mohammed Abdel Wasfi, assistant general manager of SR, told me: "We'll look seriously at their recommendations—but we don't have to accept them. And they are costing us nothing."

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